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Fulton Landing, Waterfront Revitalization Brooklyn, New York

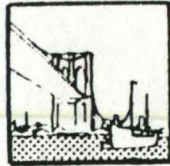
John Jeffrey Fallon
Clemson University

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FULTON LANDING

Waterfront Revitalization

Brooklyn, New York

John Jeffrey Fallon Fall 1984

A terminal project submitted to the faculty of the College of Architecture, Clemson University, in partial fulfillment of the requirements for the degree Master of Architecture.

Approved:

Prof. Peter R. Lee, Committee Chairman

Prof. Martin Davis, Committee Member

Prof. Teoman Doruk, Committee Member

Prof. Frederick G. Roth, Committee Member

Prof. Kenneth J. Russo, Head, Department of Architectural Studies

Harlan E. McClure, Dean, College of Architecture

DEDICATION

To my parents, family, and friends for their support and understanding.

ACKNOWLEDGEMENTS

Thanks to Peter Lee for his dedication to excellence in education.

To Dean Harlan E. McClure and the College of Architecture for providing a broad range of educational opportunities.

To Prof. Fritz Roth, Prof. Teoman Doruk, and Prof. Martin Davis, for their roles as advisors on my committee.

To Jim Schmidt of the New York Public Development Corporation, Clare Beckhardt of the N.Y.S. Office of Parks and Recreation, and Richard Polton, for their assistance in obtaining information.

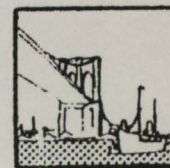
To Prof. Roger Liska, Prof. Lamar Brown, and Prof. M. David Egan, for their expertise in various technical fields.

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Introduction			

**PROBLEM
STATEMENT**



PROJECT DESCRIPTION

A parcel of waterfront property located on the northwest tip of Brooklyn has become available for development. The site is listed by the Landmarks Commission as a Historic District. Bounded by the Brooklyn and Manhattan Bridges, it contains the slip of the old Fulton Ferry and the 19th century Empire Stores which were once coffee and tea warehouses. Today the site contains some industrial and manufacturing facilities, but is largely unused. The site has an unobstructed view of Lower Manhattan.

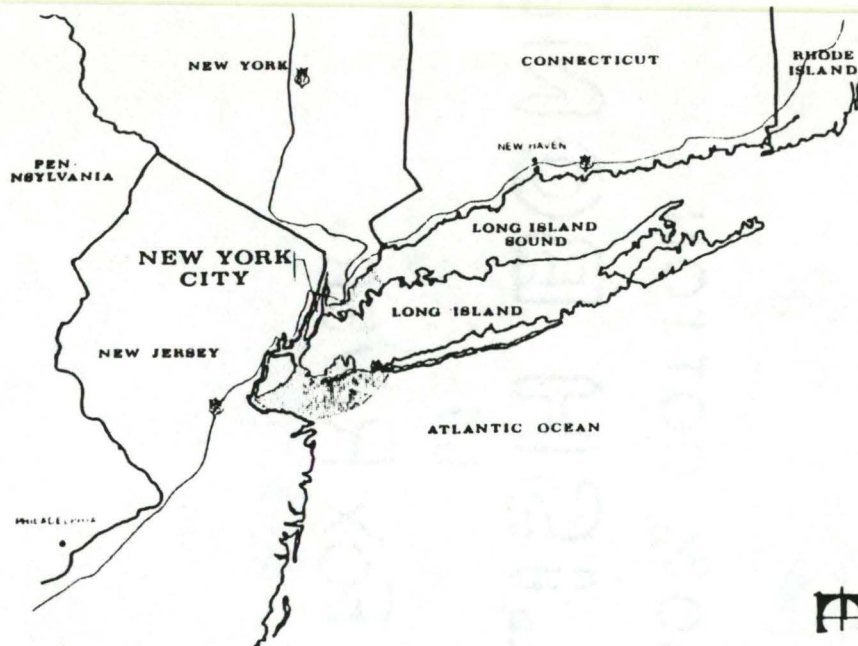
Through proper redevelopment, this strategic waterfront area has the opportunity of becoming a cornerstone of future development in Brooklyn. The purpose of this terminal project is to develop a planning and design proposal for the Fulton Landing area based upon a comprehensive area analysis and a determination of programming needs.

PROJECT GOALS

The goals of the Fulton Landing project are threefold: Waterfront Revitalization, Economic Development, and the creation of an Urban Cultural Park.

THE CITY





City Locator Map

LOCATION

The City of New York is located in the Southeast corner of New York State. It is bounded by New Jersey to the west, Westchester County and Connecticut to the North, Nassau County to the east, and the Greater New York Harbor and Atlantic Ocean to the south. New York City is approximately 150 miles from Philadelphia, 225 miles from Washington D.C., and an equal distance from Boston.

HISTORY

In search of the nearest passage to the Far East, Henry Hudson explored the New York region in 1609. Thereafter the dutch began settlements on the southern tip of the island occupied by the Mana-Hatta Indians, which would become Manhattan. New York was known at this time as New Amsterdam, and it functioned as an active trading center.

By the 1650's, English colonies began flourishing to the north and south of New Amsterdam. In 1664, the city, suffering from wars with the indians, and bankruptcy of the West India Trading Company was overtaken by a British Fleet. The name of the city was then changed to New York.

Over the next century the city prospered despite a growing uneasiness between the colonies and the crown. During the American Revolution, New York was gutted from British occupancy. But by 1790, after a rapid recovery, New York City had become the capital of the state, the meeting place of the first congress, and the seat of the first presidency.

It's population was then 30,000.

Over the following years plagues drove some of the populace to the outlying areas, expanding the city limits. In 1824, the success of Robert Fulton's ferry across the East River from New York to Brooklyn brought an increase in international trade. By the 1840's New York had become the leading port and shipbuilding center in the nation.

The Civil War brought confusion to New York along with an economic decline. However, in the years after the war New York regained it's prosperity. In 1883, the Brooklyn Bridge was opened joining the cities of New York and Brooklyn. In 1898, Brooklyn became the fifth borough of New York City.

In the 1900's the city experienced continued growth. The introduction of the automobile and the skyscraper were major ingredients in New York's path to becoming the metropolis it is today.



Borough Map



COMPOSITION

Boroughs

Five boroughs make up the Greater New York area: The Bronx, Brooklyn, Manhattan, Queens and Staten Island.

The Bronx is the only borough not on an island. Yankee Stadium, the New York Botanical Gardens, and the Bronx Zoo are located in the Bronx.

Brooklyn is connected with Manhattan by the Brooklyn, Manhattan, and Williamsburg Bridges

and the Brooklyn Battery Tunnel. The Verrazanno Narrows Bridge ties Brooklyn with Staten Island. It is the home of the Brooklyn Botanic Gardens, Prospect Park, and the Brooklyn Museum.

About 13 miles long and 2 miles wide, Manhattan was purchased from the indians for \$24 of trade goods in 1626. The site of the original dutch settlement was on the lower tip of Manhattan. Times Square, Wall Street, the Empire State building, World Trade Center, Central Park and Rockefeller Center are all on Manhattan island.

Queens, the largest borough in area is located on Long Island. Adjacent to Brooklyn on the east and Nassau County on the west, Queens is predominantly a residential area. It contains the two major metropolitan airports, Kennedy airport to the south and LaGuardia to the north. It was the site of the World's Fair of both 1939 and 1964, and is the current home of Shea Stadium and Aqueduct Race Track.

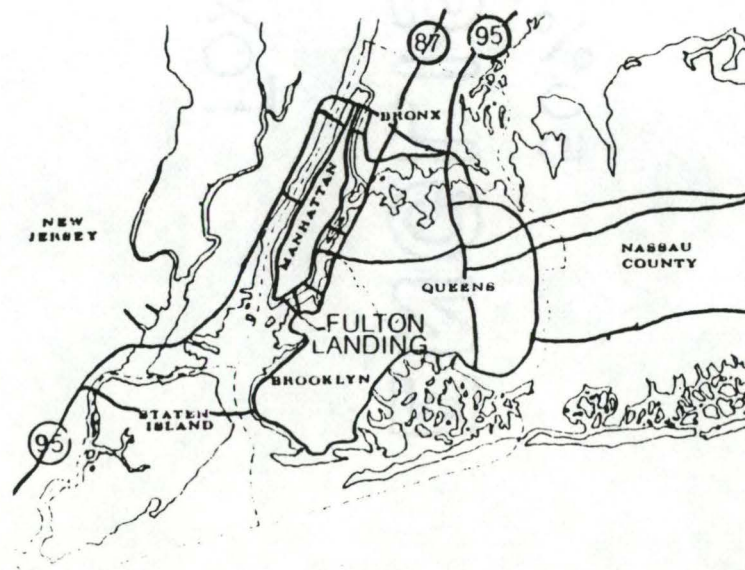
Formally known as Richmond County, Staten Island lies at the outer edge of New York Harbor. The island is mostly residential. It is perhaps best known for the Staten Island Ferry which connects it with the southern tip of Manhattan.

Population

The population of New York is about 8,000,000. 68% is white, 21% black, and 11% hispanic. Of the population some 42% are first or second generation foriegn born.

Economics

New York City is a city of diversity. It is the



Highway Map

Nation's center for fashion, finance and investment, as well as culture and entertainment. The New York and American Stock Exchanges are located in Lower Manhattan in the Wall Street area. The Central Business District is located in Midtown Manhattan.

Culture & Entertainment

Times Square, the heart of the theater district, is located in Midtown Manhattan at Broadway and 42nd Street. A number of 'off Broadway' theaters are also located in Greenwich Village, itself a culturally diverse area. The Village is known for its avant garde artists, poets and writers living among sidewalk cafes and curio shops.

Lincoln Center is New York's major music center located at Columbus Circle and 66th Street. It is the home of the Metropolitan Opera, the New York Philharmonic, and other well established organizations.

New York houses a number of fine museums, most of which are situated in the Central Park or midtown area. Madison Square Garden is New York's major indoor sport's complex serving a variety of functions.

Transportation

The greater New York area is served by a vast public transportation system. Buses and Subways run throughout the city. Commuters are served by various rail lines. The regional rail center is located in Midtown Manhattan at Penn Station. Regional bus service terminates at the Port Authority Terminal in Times Square.

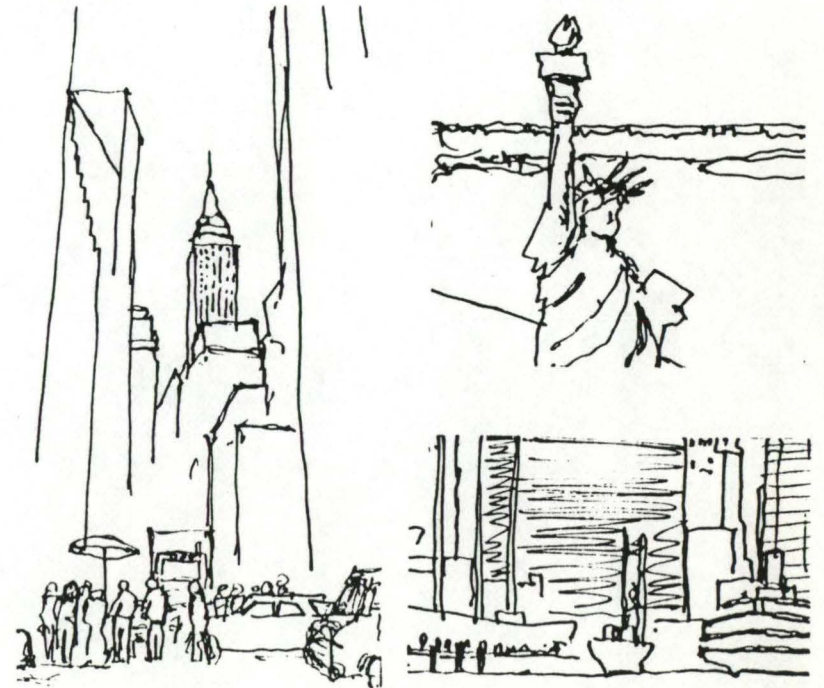
The Highway System is a complex composition of

highways, bridges and tunnels. Interstate 95 runs along the Hudson in New Jersey passing in the north of the city. The New York Thruway (87) is the main link between the city and Upstate New York.

New York is served by three major airports. John Fitzgerald Kennedy International which handles international and domestic service, and LaGuardia and Newark airports which handle domestic flights.

The Staten Island Ferry service is used for cars and pedestrians travelling between the lower tip of Manhattan and Staten Island. The ferry is in operation 24 hours a day.

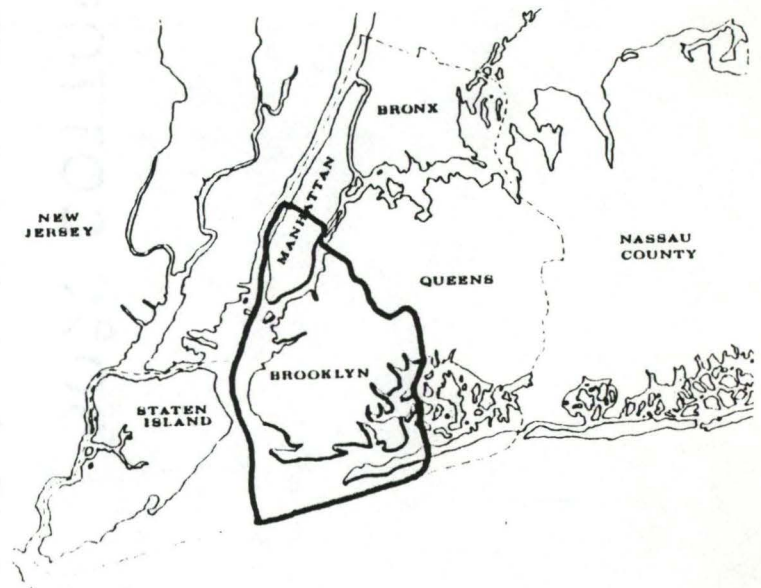
IMAGE



THE REGION

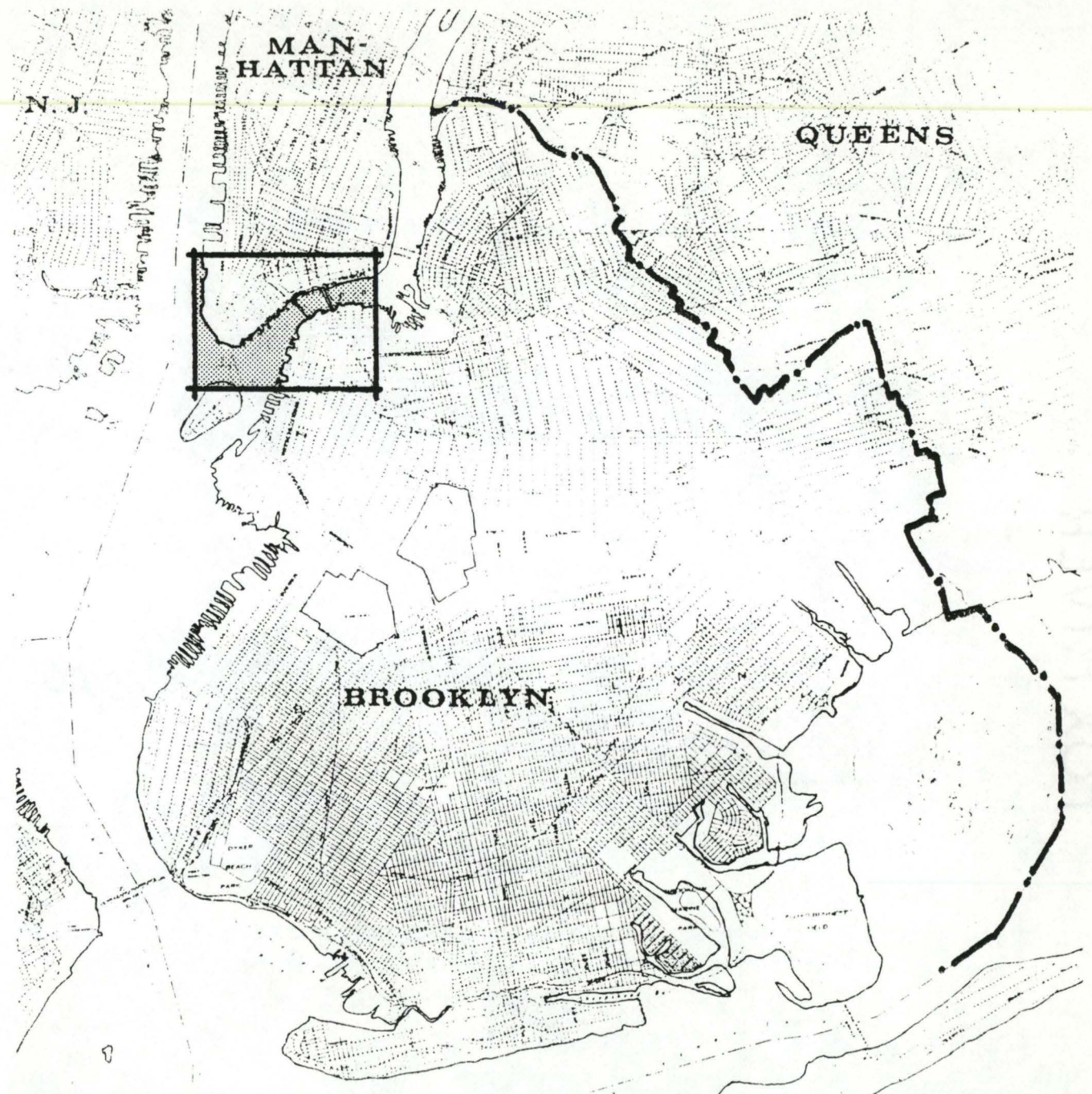


The major region of influence for the Fulton Landing project covers the borough of Brooklyn and the lower Manhattan area. These two areas have had a significant relationship in the development of the city of New York.

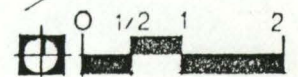


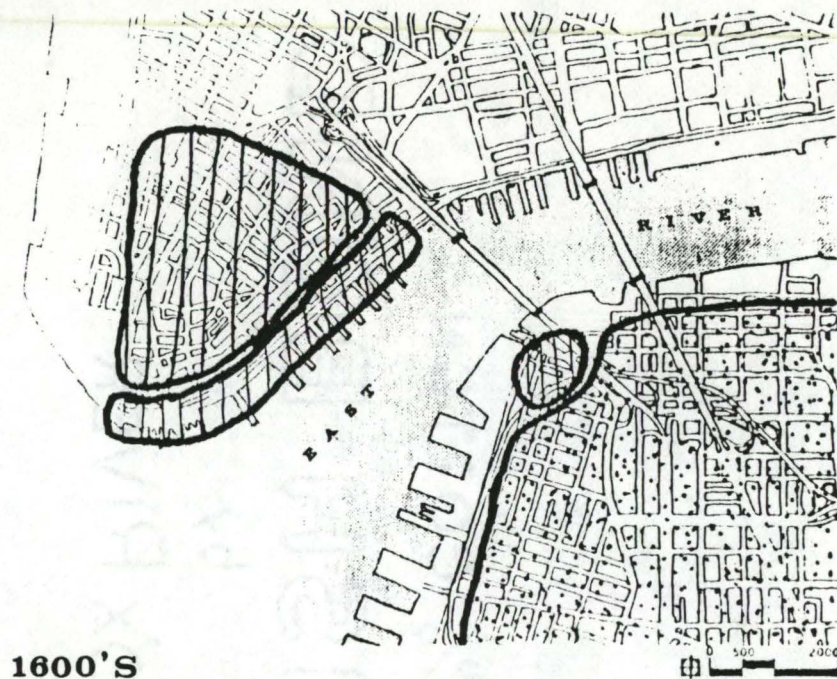
Regional Locator Map



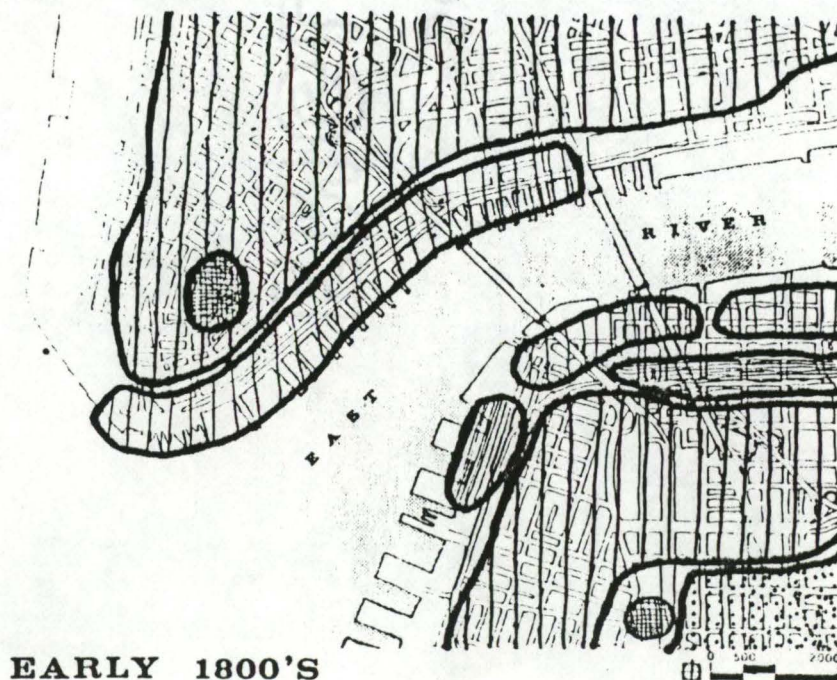


REGIONAL ANALYSIS AREA





1600'S



EARLY 1800'S

GENESIS

1600's

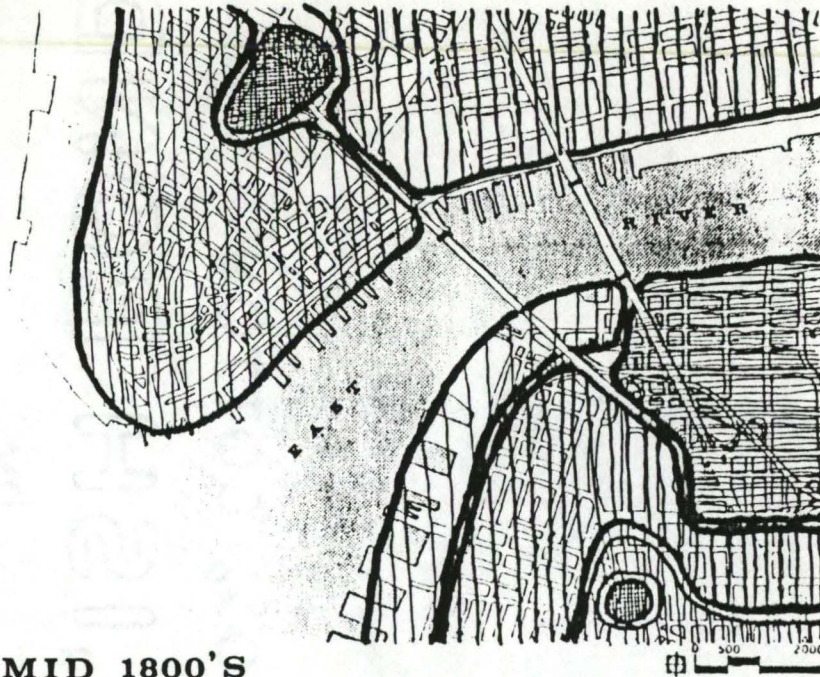
The original Dutch settlements were established on the southern tip of Manhattan shortly after Henry Hudson's exploration in 1609. In 1642, ferry runs had begun from these settlements across the East river to Brooklyn. These river crossings provided Brooklyn's farmers with a market for their agricultural goods in Manhattan. At this time Brooklyn was farmland. It remained so over the next century and a half.

Early 1800's

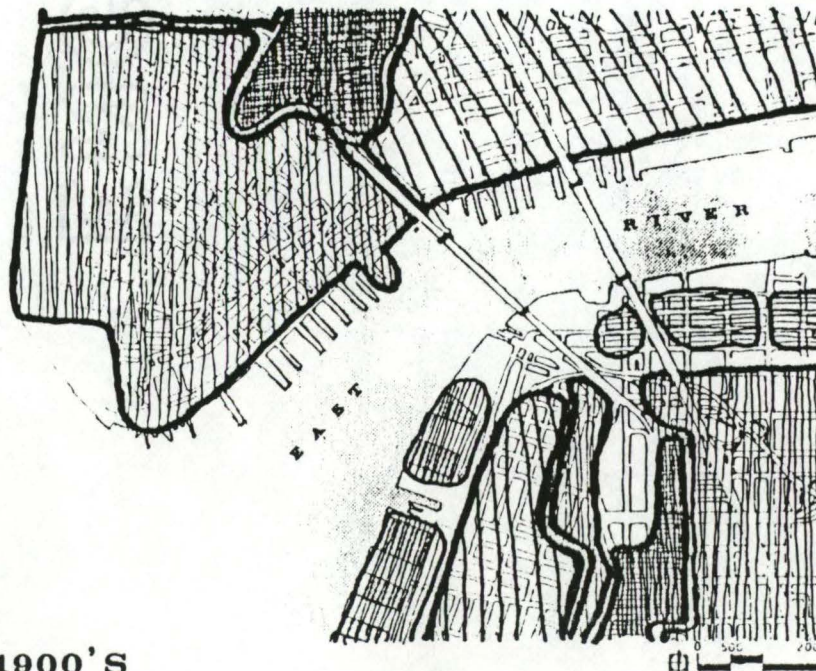
In the early 1800's, increasing population and the institution of a steam powered ferry across the East River led to increased commercial development along the water's edge. Trade goods from the northeast could now be transported down onto Long Island and across to Manhattan by ferry. Also, with the steam powered ferry came development of the first 'suburb' of Manhattan; Brooklyn Heights.

KEY:

Commercial	
Residential	
Municipal	
Manufacturing	
Open space	



MID 1800'S



1900'S

Mid 1800's

By the mid 1800's New York was well established as the seafaring capital of the nation. The East River area was the nucleus of this activity. Marine activity flourished on the shorelines of lower Manhattan and Brooklyn. The increased trading activity brought with it commercial and industrial business and an ever growing populace. Brooklyn's residential development was spreading at a rapid rate pushing farmers easterly. New York and Brooklyn were each among the largest cities in the country.

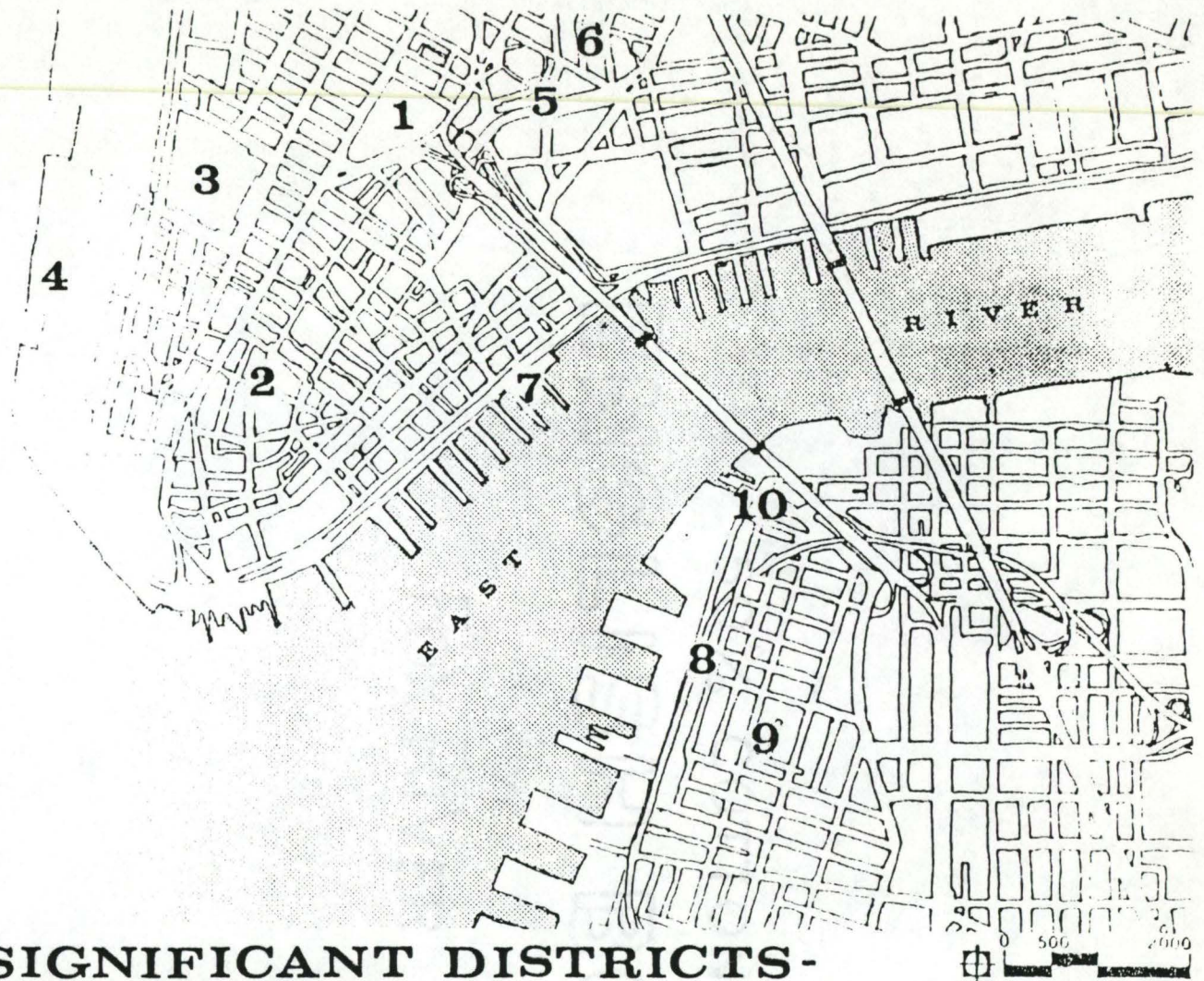
1900's

The 1900's brought drastic changes to the region. Larger ships and increasing technology caused the shift in maritime activity from the East River to The Hudson. The opening of the Brooklyn Bridge in the late 1800's brought a shift of commercial activity inland. Today, lower Manhattan is the financial center of the world as well as federal and municipal headquarters. Brooklyn has become a diverse melting pot. The waterfront, has in many areas become neglected and isolated.

SIGNIFICANT DISTRICTS/LANDMARKS

Although much activity has shifted away from the Fulton Landing and surrounding waterfront region the area still is a vital location. Significant Districts and Landmarks radiate from the waterfront area reinforcing it's historic role. Lower Manhattan has become a diverse and active part of city life. It is the governmental center for the city with federal, state and city offices located here. Wall Street and the World Trade Center represent vital business. Battery Park City is a new development on the western edge of the island. Lower Manhattan also boasts such ethnic areas as Chinatown and Little Italy just off the Manhattan Bridge entrance.

Across the river in Brooklyn one can view the famous skyline from the Brooklyn Heights Promenade and then walk through Brooklyn Heights itself. Arts in the Anchorage, the New York Maritime Museum and the River Cafe are all located around the Brooklyn Bridge tower and anchorage on the Brooklyn side.



SIGNIFICANT DISTRICTS- LANDMARKS

KEY:

- | | |
|---------------------------|---|
| 1- City Hall | 6- Little Italy |
| 2- Wall Street | 7- South Street Seaport |
| 3- The World Trade Center | 8- Brooklyn Heights Promenade |
| 4- Battery Park City | 9- Brooklyn Heights |
| 5- Chinatown | 10- Arts in the Anchorage, River Cafe,
Maritime Museum |

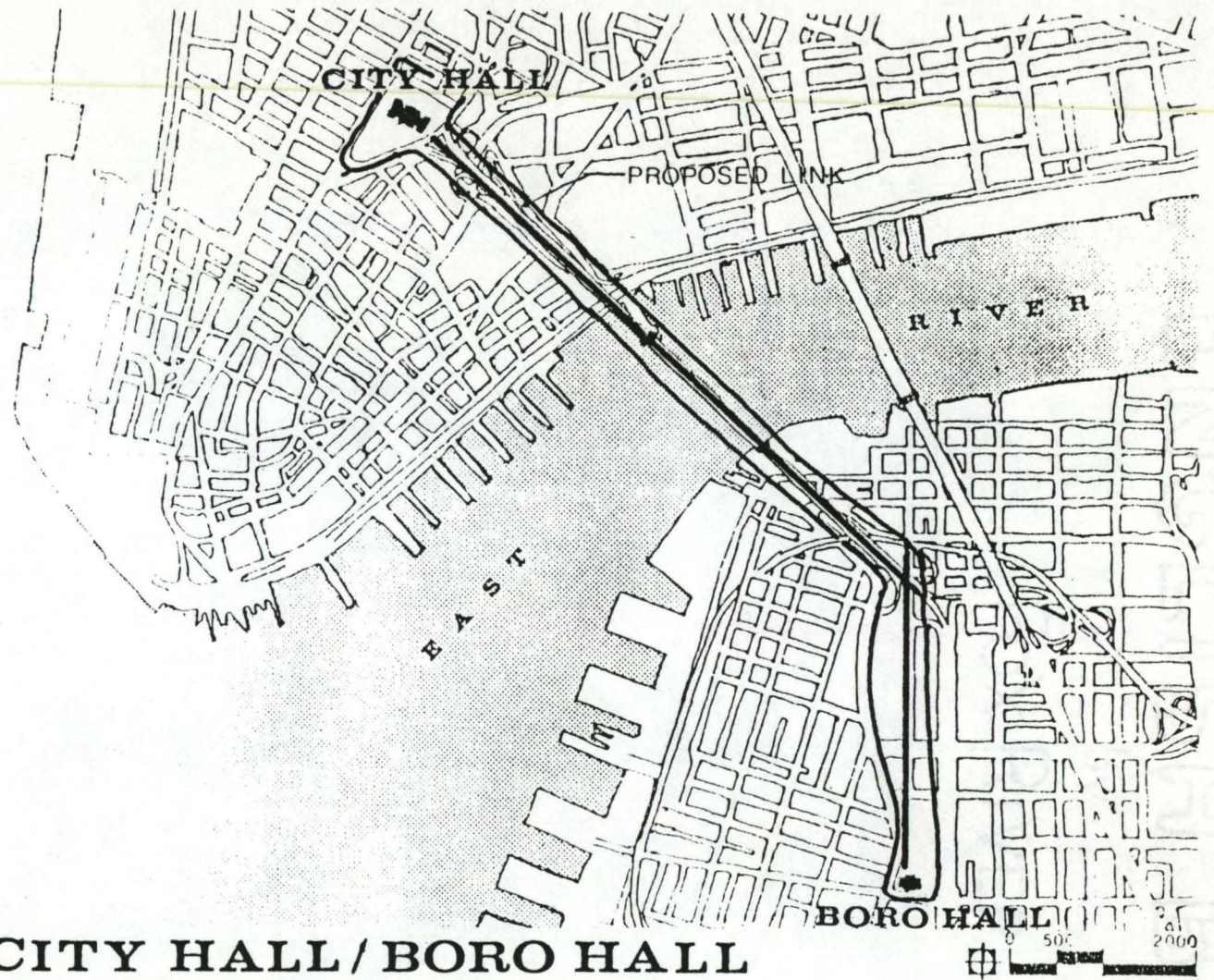
CITY HALL TO BORO HALL

The municipal centers of both the entire city and the borough of Brooklyn sit within the region. Their locations reflect historic inter-relationships among the two. These locations represent a significant opportunity.

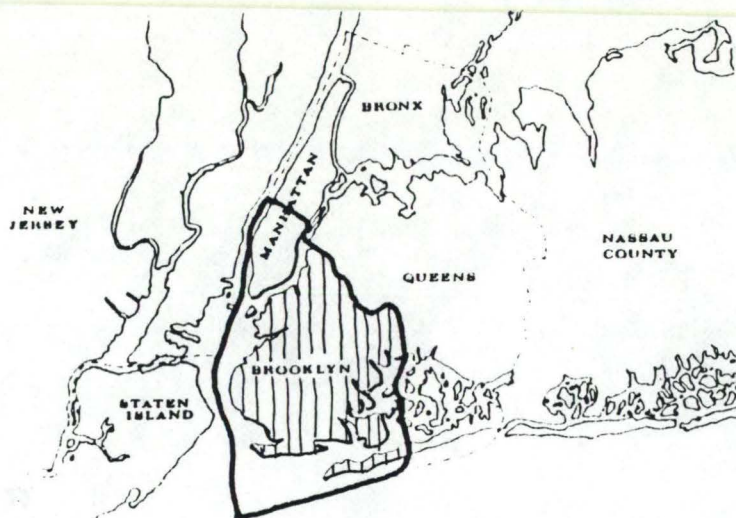
Boro Hall, designed by Gemaliel King and built in 1846, served as the city hall for Brooklyn until 1898 when it became one of the five boroughs of New York City. At this time it became known as Boro Hall. Today it is the center of the municipal government. It sits at the end of a public park whose axis is terminated at the beginning of the Brooklyn Bridge ramps.

The existing City Hall was built in the early 1900's. It is the location of the mayor's office and serves as the focal point of the downtown Manhattan area. It's longitudinal axis is on direct line with the Brooklyn Bridge.

It is necessary to establish a formal link between the two government centers. The proposed development of the Manhattan Anchorages, and the development of the Fulton Landing project should acknowledge their relationship. With the historic significance and economic importance of these and related projects it is important to properly tie them to the existing urban fabric. The relationship of City Hall and Boro Hall represent a planning formwork for this.



CITY HALL / BORO HALL



The Borough of Brooklyn

BROOKLYN

Location

Brooklyn is one of the five boroughs of New York City. It is located south east of the island of Manhattan on the western portion of Long Island. Bounded to the east by the borough of Queens, it is surrounded on its remaining sides by water; the Atlantic Ocean to the south, Buttermilk Channel to the west, and the East River to the north.

History

Henry Hudson arrived off the coast of what is now Coney Island in 1609. The early Dutch settlers began arriving in Brooklyn shortly thereafter. The name Brooklyn was derived from the Dutch word 'bruekelen', meaning broken valley. Early Brooklyn was a land of farmers and remained so for nearly 200 years.

After 30 years of Dutch rule, English influence became predominant. In 1683, under English rule, Brooklyn obtained its formal name of King's County.

From 1783 to 1835, between the revolutionary and civil wars, the population of Brooklyn grew from 5,000 to 32,000. This was a period when the Irish population increased greatly. It was during this period that Brooklyn's waterfront had begun to be explored. In 1801 the Brooklyn Navy Yard was established, and after the war of 1812, shipbuilding docks began to appear along the water's edge. Through the 1800's docks and factories occupied the waterfront while inland Brooklyn remained a

vast farmland feeding New York. Marine commerce brought industries of rope making, glue and glass works along with whale oil refineries, leather and hat making operations, sugar refineries, distilleries and breweries to the river. By the mid 1800's 13 ferries connected New York and Brooklyn; which had become by that time the first and third largest cities in the country.

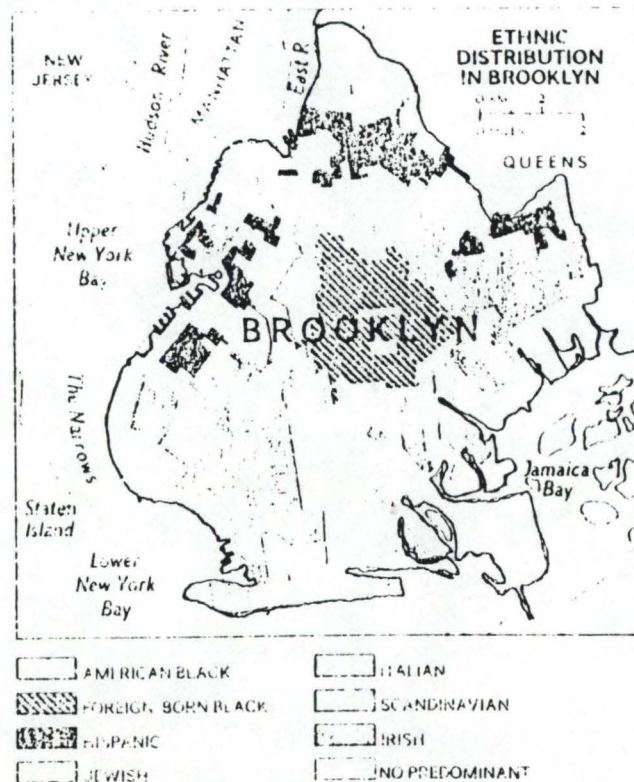
In 1883, the opening of the Brooklyn Bridge brought a new era to Brooklyn. Development was shifted inward toward Boro Hall and Prospect Park. The bridge created the physical link that brought the two cities closer than they ever had been. 1898 was the year in which Brooklyn officially became a member of the city of New York joining the other four boroughs of Manhattan, Staten Island, Queens and the Bronx to form the Greater New York area.

Composition

Population

Approximately 2.2 million people live in the borough of Brooklyn. The population of Brooklyn is of the most diverse in the world. This diversity has earned Brooklyn the name of "America's melting pot". It is said that seven out of every ten americans can trace roots back to Brooklyn. Such stars as Jackie Gleason, Barbara Streisand, and Harry Houdini have come from Brooklyn. Blacks, hispanics, italians, jewish, irish and scandinavian comprise Brooklyn's major ethnic components.

Economics



Colors show areas where different ethnic groups predominate. Of the total borough population of 2.2 million, 31% are black, 18% Hispanic, 18% Jewish, and

Brooklyn has recently undergone a shift in its economic base. For years manufacturing was Brooklyn's major economic base. However, in recent years this base has deteriorated. Today the service sector comprises the largest sector of Brooklyn's business. Manufacturing now is its second largest industry with trade being the third.

Urban Pattern

The borough grew from a series of five towns along the East River into a conglomeration of neighborhoods interwoven with commercial and industrial areas. Brooklyn's present downtown area is located in the vicinity of these original settlements. The Borough is centered around Prospect Park, designed by Frederick Law Olmstead in the 1800's. A series of waterfront parks and open spaces form a continuous promenade along the southern shore.

Cultural and Educational

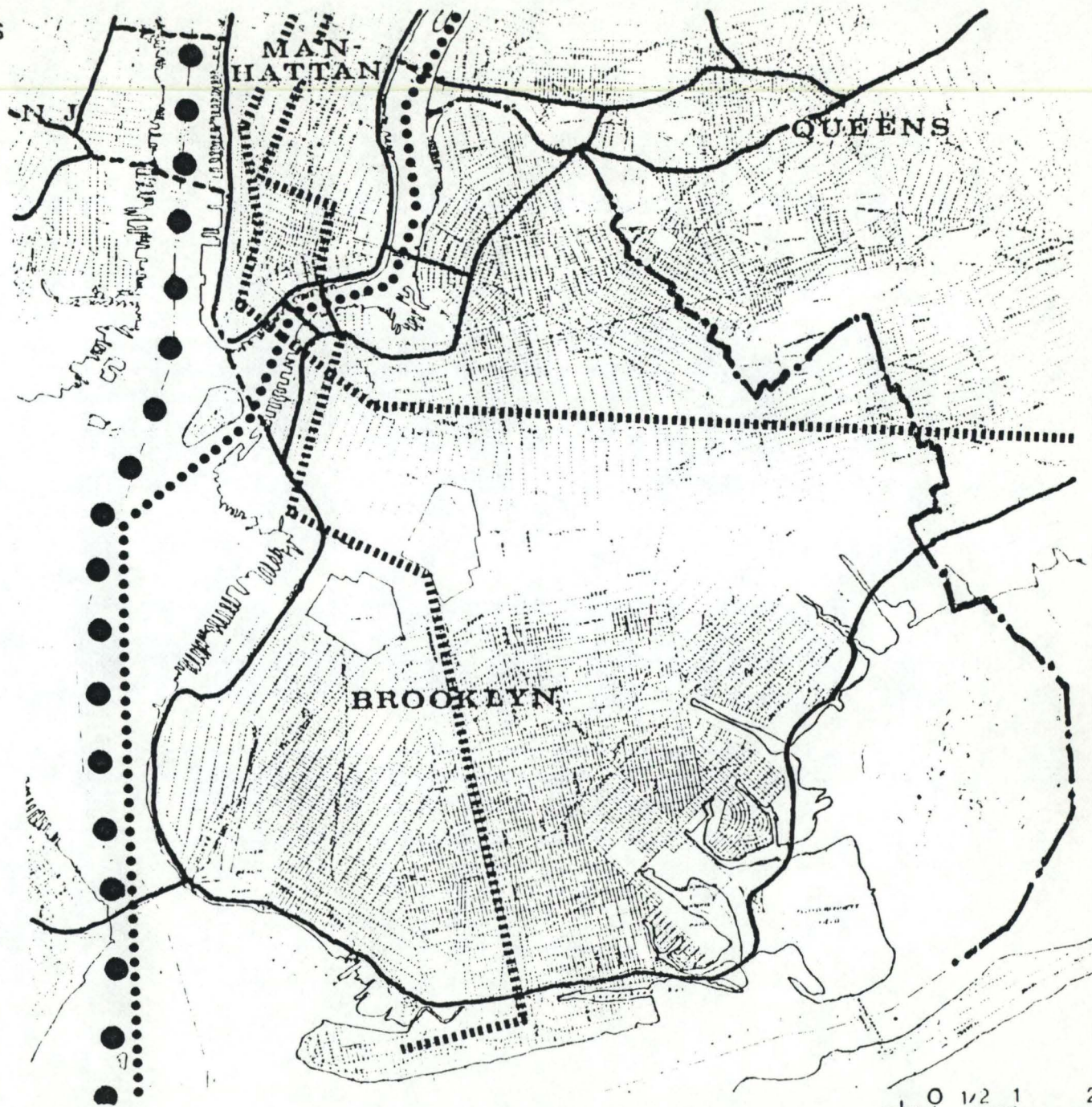
Brooklyn has a series of Cultural facilities, the heart of which is based around the entrance to Prospect Park at Grand Army Plaza. The Brooklyn Museum, Public Library and Brooklyn Botanical Gardens are located here. Currently the New York Maritime Museum is housed next to the Brooklyn Bridge tower and a new facility, the Arts In The Anchorage, is located in the bridge anchorage.

Saint Francis College, Polytechnic Institute of New York, Brooklyn College, Pratt Institute and Long Island University are all located in Brooklyn. Many of these are centered in the Downtown area.

IMAGE



REGIONAL ANALYSIS



REGIONAL TRANSPORTATION

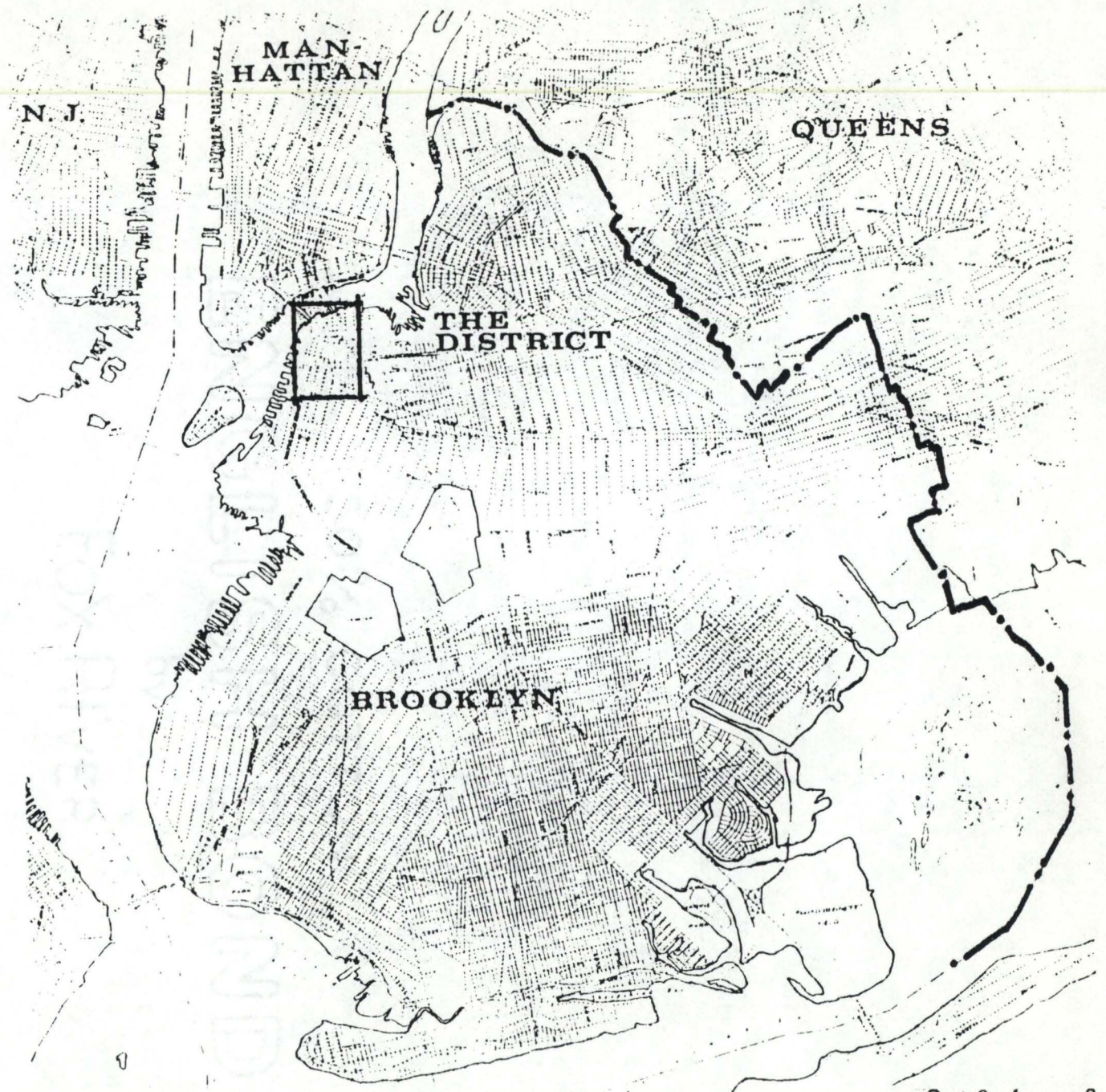
CONCLUSIONS

The significant historic relationship between Brooklyn and New York should be symbolized through the linkage of New York City Hall and Brooklyn's Boro Hall.

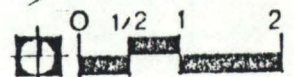
The diverse culture of Brooklyn is it's most valuable asset and must be capitalized on.

THE DISTRICT





DISTRICT LOCATOR MAP



The borough of Brooklyn is comprised of 18 Community Planning Districts. The Department of City Planning established the boundaries of the districts with respect to historical factors and existing neighborhoods. Fulton Landing is located in community planning district 2.

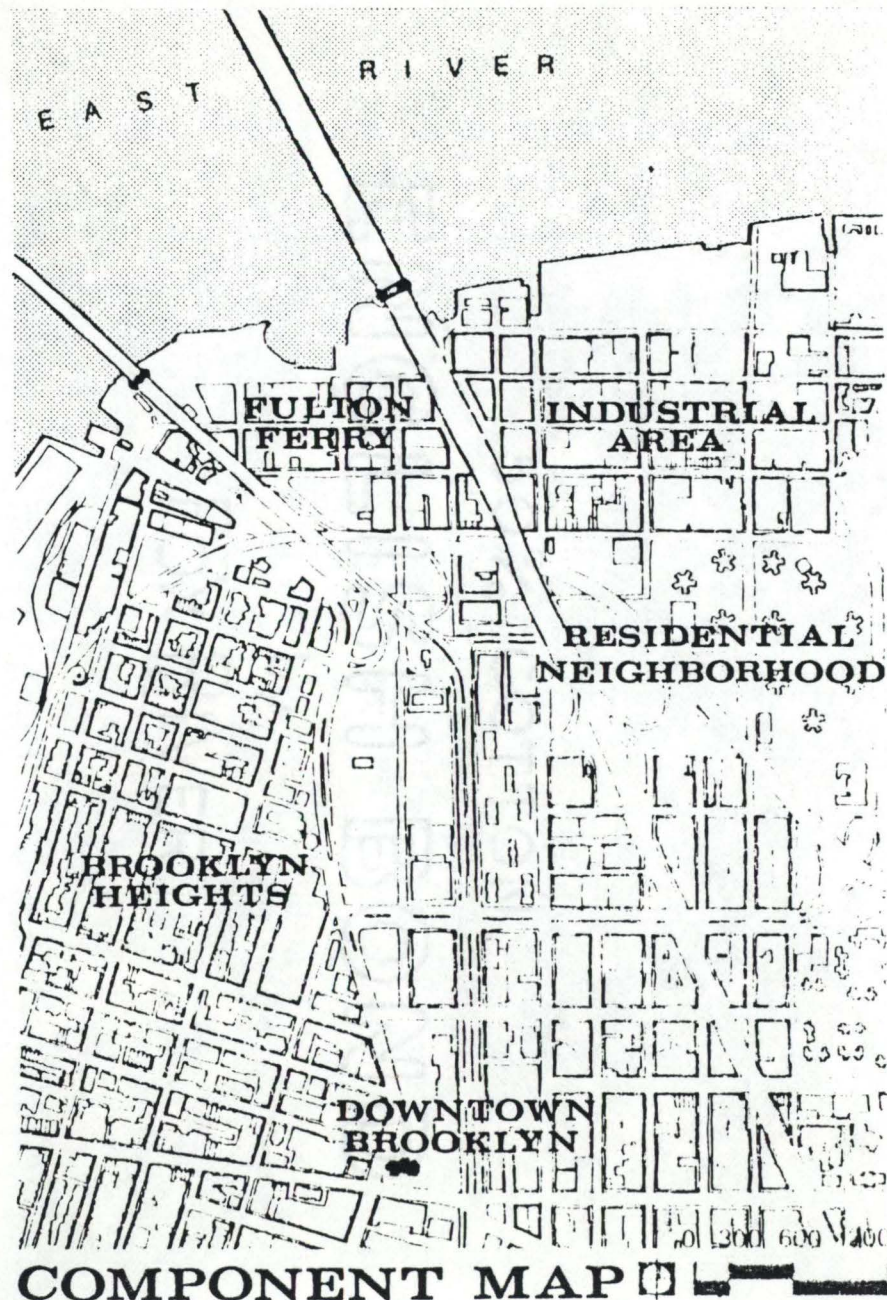
HISTORY

Originally founded by the Dutch in 1657, the village of Brooklyn was established at what is now the corner of Fulton and Smith Streets. This location was in close proximity to the port. The original town grew to a size larger than the planning district, while the original site of the settlement developed into the commercial center.

In 1801 the U.S. Government purchased the Brooklyn Navy Yard. The 1824 opening of the steam powered ferry service to Manhattan led to the development of Brooklyn Heights as the first suburb of New York. This suburban growth spread to Fort Greene and Clinton Hill. Meanwhile, the seafaring area of the waterfront remained an area filled with much marine activity.

The Brooklyn Bridge opening in 1883 joined the cities of Brooklyn and New York and slowly began a deterioration of the district area. Shoppers were drawn to the wider variety of shops in Manhattan while low income families streamed into Brooklyn from Manhattan's overcrowded East Side.

The first step to reverse the decline was the removal of the elevated Fulton Street. Following World War II steady progress has been made, mainly in the area of the civic



center.

COMPOSITION

Brooklyn's Community Planning District 2 consists of five major components: Downtown Brooklyn, Brooklyn Heights, Fulton Ferry, the Residential area, and the Industrial area.

Downtown Brooklyn

Downtown Brooklyn has traditionally served as both a center of civic activity, and as the commercial core of the borough.

Brooklyn's civic center extends along Adams Street, the wide approach to the Brooklyn Bridge, with Borough Hall, built in 1846, as it's focal point. To the north of the hall lies the New York State Supreme Court building, the Post Office, Federal Building and an extension of the Brooklyn public library. To the south are the Municipal Building, the Board of Education Headquarters, the Central Court Building and the City Prison.

Fulton Street and it's surrounding streets form the core of Brooklyn's retail center. The area attracts more than 200,000 visitors on an average business day. Although it has stores oriented to the neighborhood it also serves as the commercial center for the entire borough and attracts 20% of it's customers from outside the borough.

However, the area has not met the potential for becoming a private office center. Too few buildings have been constructed for this purpose in the past decades. Availability of inexpensive real estate and easy access to

regional transportation make it feasible for more intense office development.

Residential Neighborhoods

Fort Greene and Clinton Hill, the two major residential areas in the district have a combined population of 72,000. Although portions are deteriorated, these areas maintain the potential for providing a good area for family living.

Clinton Hill is located on the highest land in the area and has a variety of architectural styles including many brownstones.

A number of fine old row houses occur in Fort Greene. It also contains several public housing projects, Such as the Whitman and Ingersall Houses, completed in 1944. The Farragut Houses between the Brooklyn Queens Expressway and the Brooklyn Navy Yard have been serving low income families since 1952. Concord Village located on Jay Street is a 1000 unit housing complex.

Brooklyn Heights

Located on a bluff south of the Fulton Ferry, Brooklyn Heights stretches to the edges of the civic and commercial centers. As New York's first suburb the area has been recognized by the New York City Landmarks Preservation Committee becoming it's first historic district in 1965. The Department of the Interior has placed Brooklyn Heights on the National Register of Historic Places. The area is characterized by small scale mid 19th century structures and narrow streets imparting a quiet and intimate atmosphere. The more notable buildings in the area are the Plymouth Church of the Pilgrims on Orange Street, number 24

Middaugh Street, one of the earliest buildings of the heights dating from 1824, and the Brooklyn's Childrens Aid Society Orphanage, a good example of victorian architecture on Poplar Street. The Brooklyn Heights Promenade, famous for it's views of the lower Manhattan skyline, runs along the waterfront of the East River.

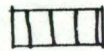
Industrial Area

The major industrial area in the district lies north on the East River. The Manufacturing Core District is located east of the Manhattan Bridge. There are still some sound industrial buildings in the Fulton Ferry Area between the Brooklyn and Manhattan Bridges. The industrial area experienced a decline that coincided with the closing of the Brooklyn Navy Yard. Adjacent to the district the Brooklyn Navy Yard, no longer used by the Navy, is being developed for industries employing large numbers of people. The area now employs over 3000 workers, but has potential to employ over 30,000.

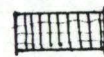
DISTRICT ANALYSIS

KEY:

Residential



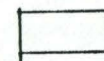
Municipal



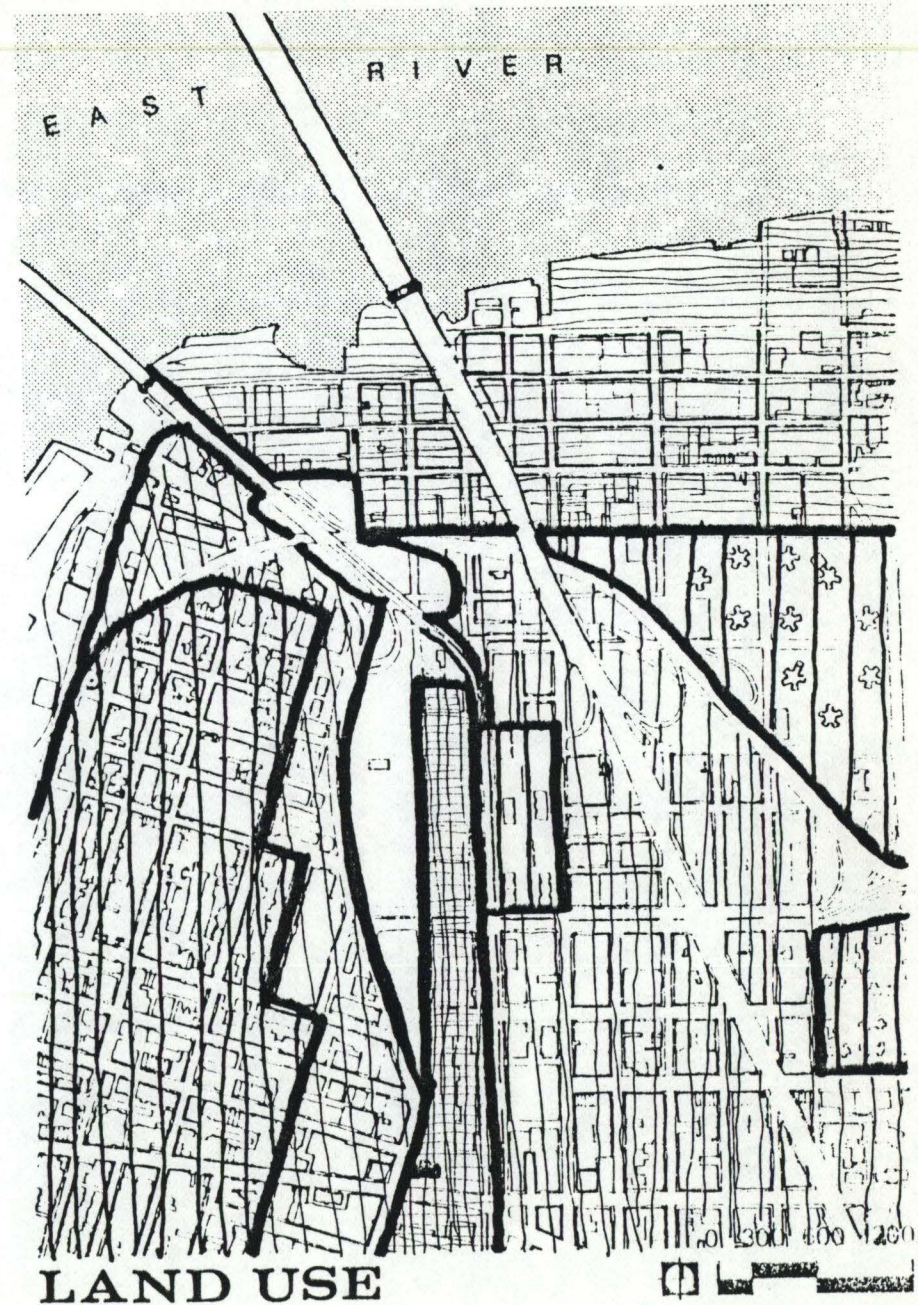
Manufacturing



Open space



Commercial

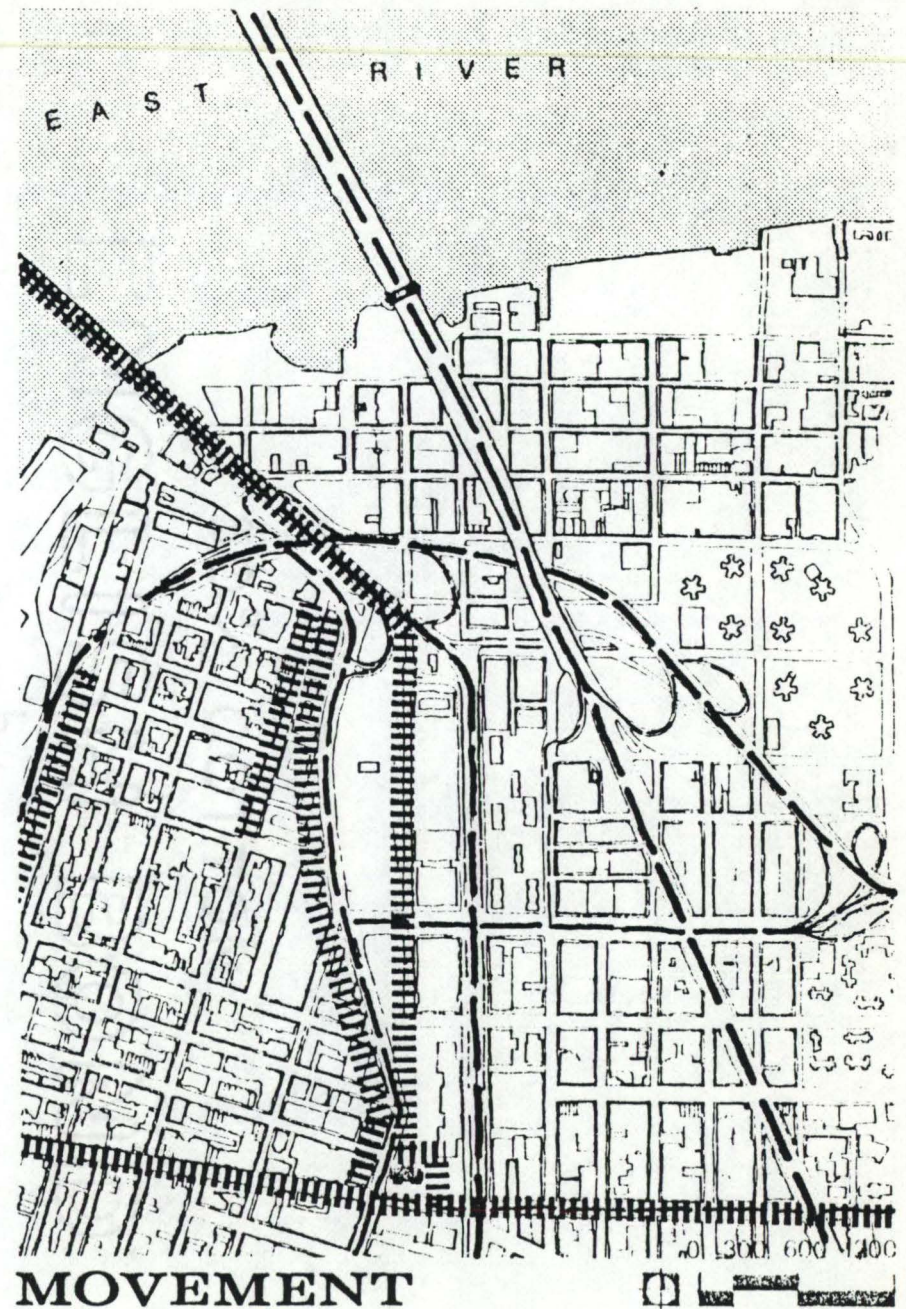


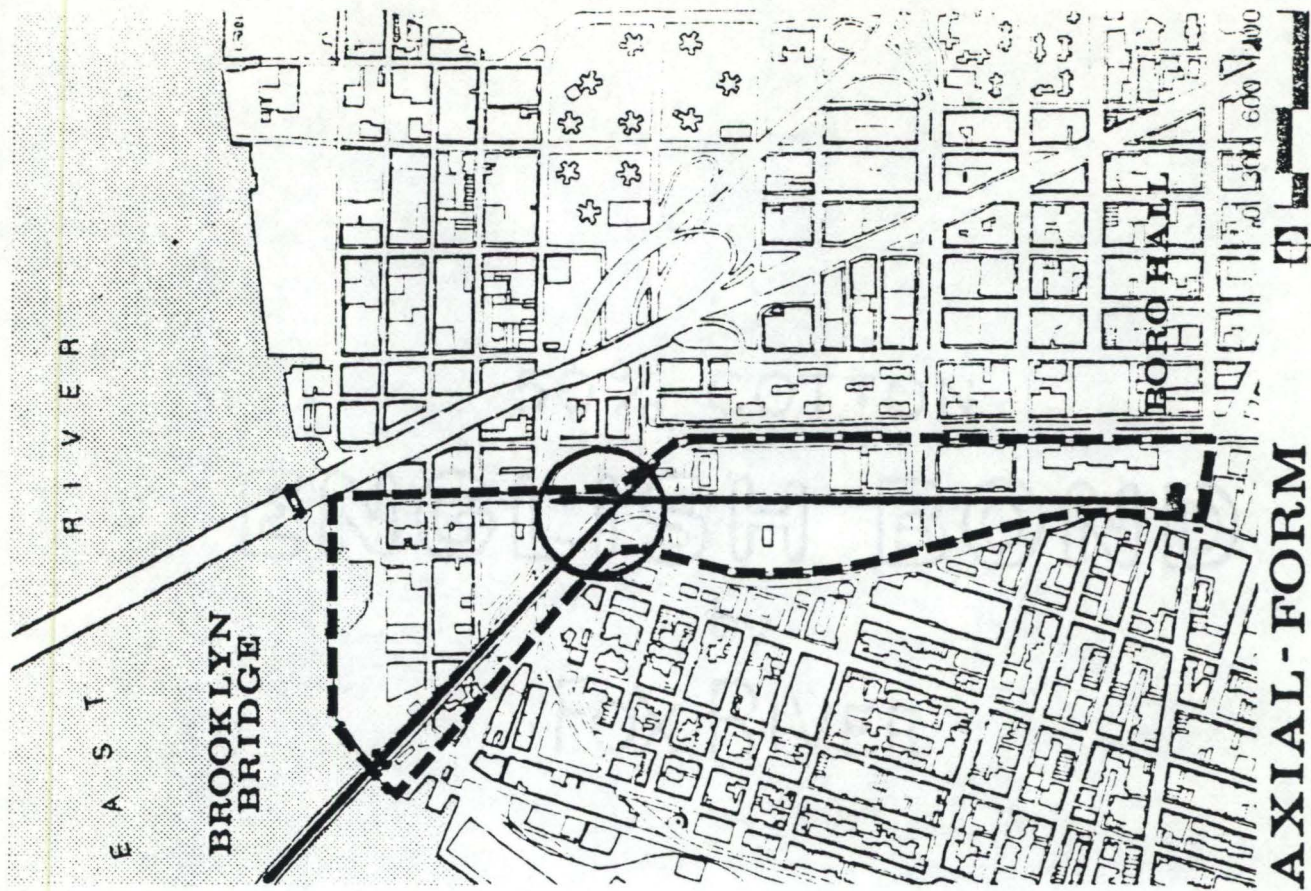
KEY:

Vehicular



Pedestrian

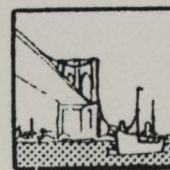


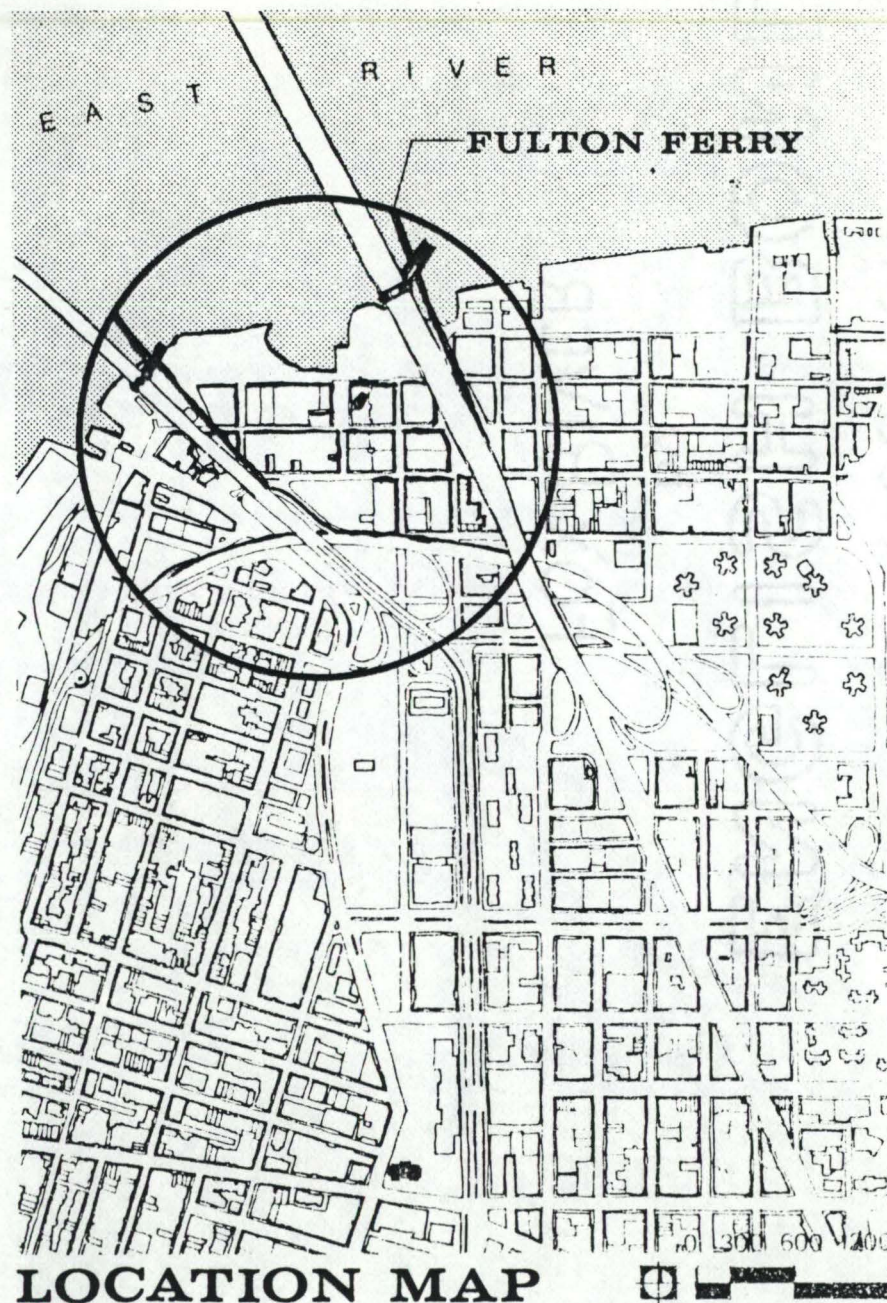


CONCLUSIONS

The waterfront was the main resource in the development of Brooklyn as a powerful center of commerce. It's relation with Downtown Brooklyn must be recreated.

**FULTON
FERRY**





LOCATION

Fulton Landing has historically been a connection to Manhattan and a path to the development of Brooklyn. The site's location gives it a strong link to Brooklyn Heights, Downtown Brooklyn, and Lower Manhattan. The East River provides direct water access to the South Street Seaport and Lower Manhattan. In addition, the East River, as part of the Intercoastal Waterway, provides pleasure boat and commercial shipping activity.

Brooklyn Heights, one of New York's finest residential areas, is located just to the west of Fulton Landing. Direct Access from the Heights is provided by Columbia Heights Avenue and Henry Street.

The Brooklyn Civic Center is located directly to the south, a 10 minute walk on Washington or Fulton Streets.

Nearby public housing projects are the 1390 unit Farragut Housing Project for low income families, and the Concord village, a 1000 unit middle income cooperative development. The Farragut Houses are located between York and Nassau Streets, several blocks to the east. Concord Village is located on Jay Street, four blocks south.

In the blocks to the east lies the major industrial area of the district. Over 150 firms and 5,000 jobs exist in this district. It has remained relatively stable compared to the extensive decline of manufacturing in the borough as a whole.

The world headquarters of the Jehovah's Witnesses is located in the renovated industrial

buildings that surround Fulton Landing on both sides. These well maintained buildings are occupied by 2000 workers and contain printing and teaching facilities.

HISTORY

According to Dutch records the first ferry service between Long Island and New Amsterdam was established as early as 1642. It traversed the East River from the foot of the present Fulton Street in Brooklyn to the present Peck Slip in Manhattan. The first main street in Brooklyn, Old Ferry Road which is now known as Fulton Street, was laid out in 1704 from the low water mark at the ferry eastward about one mile east to the old Dutch Church.

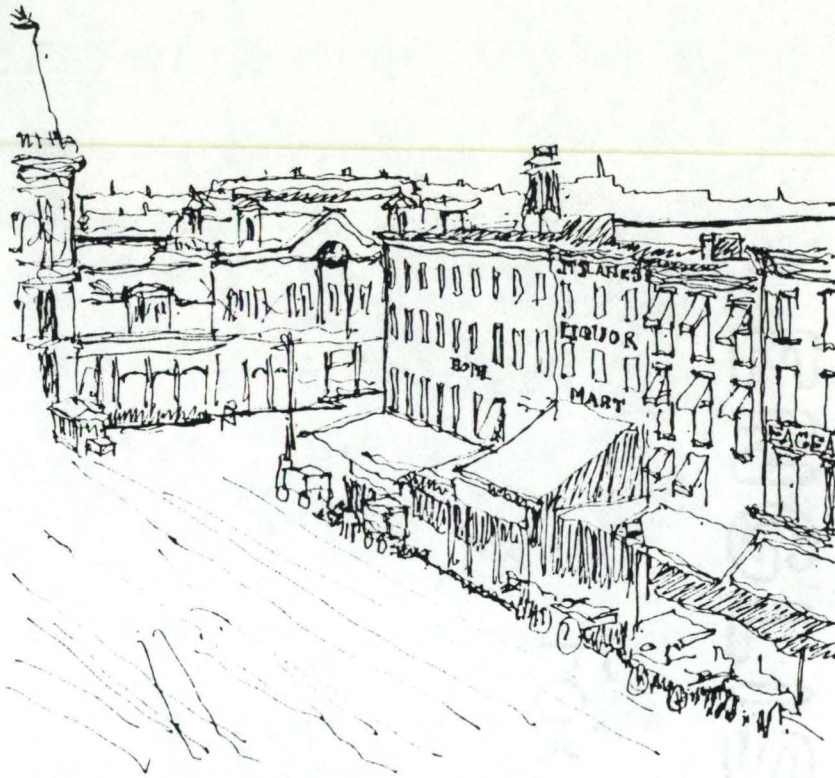
During this period, the embryo City of New Amsterdam provided rural Long Island with a market for agricultural produce. The ferry rapidly became a focal element in this traffic. Cattle destined for this market were herded from the outlying settlements of the Island to the Brooklyn ferry where slaughter houses flourished amidst the rapid commercial development. The main link between the islands, the ferry route was that used in 1776 by General Washington's army in evacuating his army following defeat in the battle of Long Island.

The original oar driven ferries were succeeded by horse powered paddle wheel boats by the beginning of the 19th century. In 1824, the first steam powered ferry at this site went into service. Fulton Ferry's name derives from Robert Fulton, the man who pioneered steam transportation. During the 1820's the

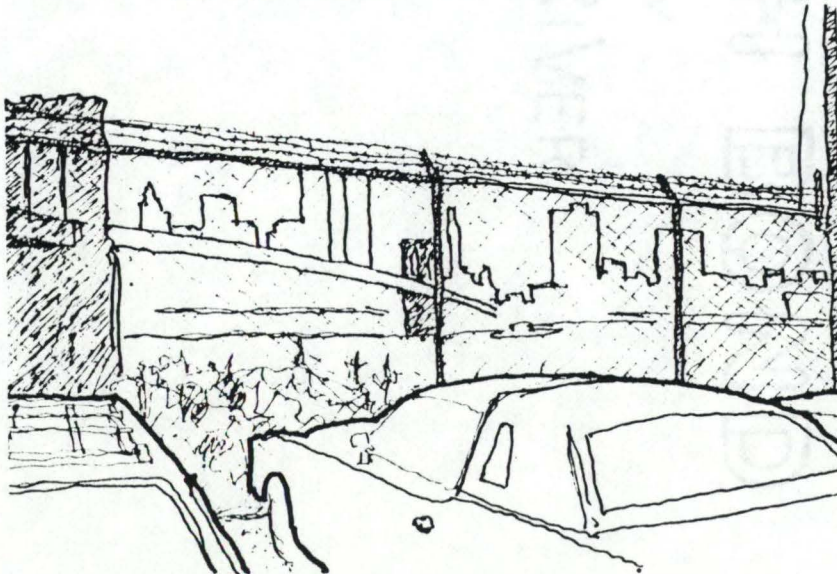
population of Brooklyn increased sharply as traders from the declining small ports of New England migrated to the maritime center at New York City. Fulton Street, had become Brooklyn's business district. From city hall the street sloped westward a mile or so to the river where it ended and the horsecars made their turn in front of the ferry house. Lining the route were a wide variety of commercial establishments including taverns, stores, two hotels, a blacksmith shop livery stables, a tailor, grocers, a distillery, and the headquarters of the Brooklyn newspaper, "the Eagle".

In 1844 when the Union Ferry Company took over the Fulton Ferry and five other ferry lines traversing the East River, thirteen boats were operating, day and night, making over a thousand crossings in 24 hours. During the Civil War the population of Brooklyn swelled until it was the second largest city in the union. The Fulton Ferries were still the major link between Brooklyn and Manhattan, but adverse conditions such as overcrowding, and accidents due to severe weather conditions along with increasingly high fares caused search for an alternative link.

The Brooklyn Bridge which was completed in 1883 immediatly north of Fulton Street, passed over the waterfront bearing traffic deep into Brooklyn. Fifteen years later elevated trains began transporting people across the bridge, followed in 1902 by the construction of the Manhattan Bridge immediately to the north of the Brooklyn Bridge. By now the ferry had fallen into disuse and with the commercial hub shifted inland the waterfront ceased to serve a vital purpose in the day to day life of Brooklyn. Construction of the ramps of the



Cadman Plaza West in the late 1800's



The deteriorated waterfront at Main St. Pier

Brooklyn Queens Expressway further took attention away from the waterfront, with the result that the once thriving center of the city of Brooklyn is today back water containing only some warehousing and light manufacturing activity.

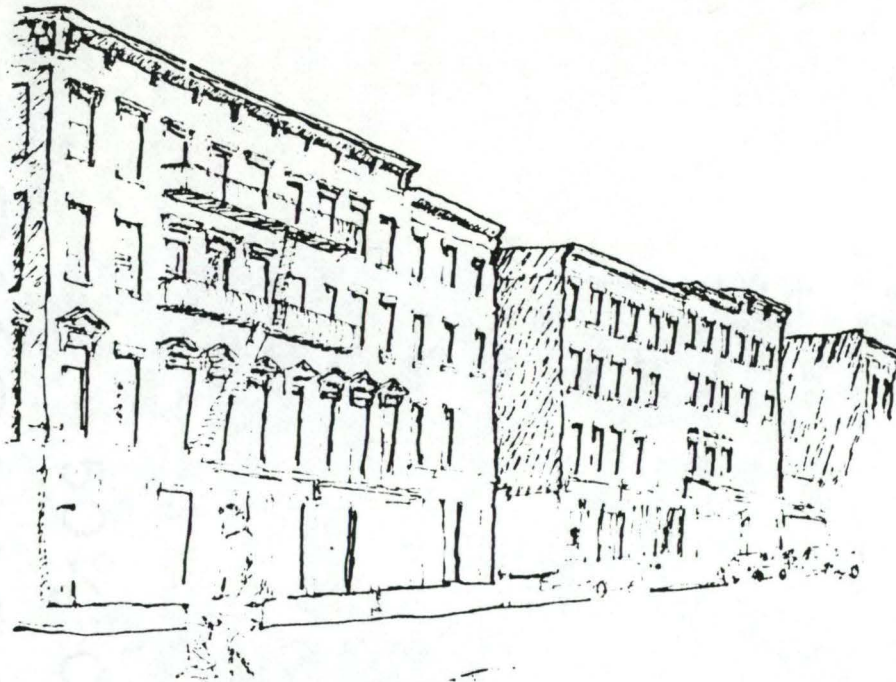
IMAGE

Historic Image

Through the first part of this century the Fulton Ferry area was known for it's commercial and transportation activity. In it's heyday with the Ferry House sitting at the end of Old Dock Street the area was the focus of commercial activity in Brooklyn. Front Street was New York's first financial center. Trolley lines terminated at the Ferry House and horse drawn carts lined the street. The Empire Stores and it's surroundings were an active commercial warehousing district. The area was lined with goods being transferred from their ships to be lifted by still existant hoists into the warehouse. It was filled with workers, businessmen, housewives and commuters alike.

Present Day Image

Two images are portraited in the district today: one of deterioration and isolation in the waterfront area, the other is the promise of revitalization in Cadman Plaza West. This area, on the western end of the site, has been renovated to echo the days of the ferry. A row of Greek Revival Buildings houses a variety of craft shops and restaurants. The Eagle Warehouse has recently been converted to residences, the River Cafe at the water's edge is a popular attraction, and the old ferry fire



The Greek Revival Buildings



Cadman Plaza West with the Eagle Warehouse

station houses the New York Maritime Museum. The dock area is paved in cobblestone, and lightposts have been installed which are sensitive to the area's history.

However, just under the Brooklyn Bridge the evidence of deterioration comes to view. The abandoned Empire Stores sit amidst an underused and underdeveloped state park, a decrepid waterfront, and a dirt ridden street. Access to the water is restricted by a barbed wire fence. Just beyond the stores is the partially collapsed Main Street Pier extending in front of a three acre parcel of vacant land.

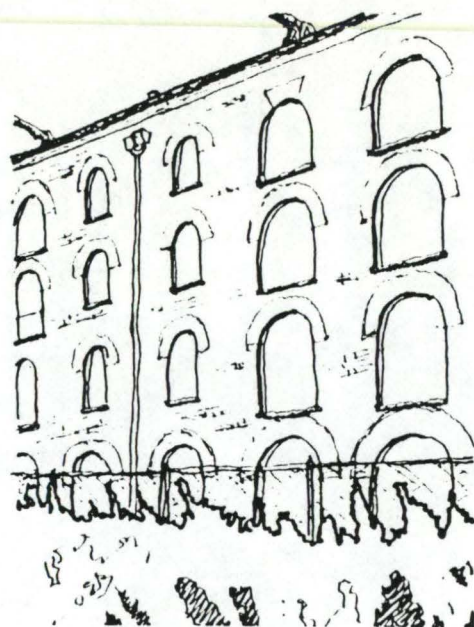
ARCHITECTURAL FABRIC

Cadman Plaza West

This area is characterized by three pieces of significant architecture; a row of Greek Revival Buildings, the Long Island Safe Deposit Company building, and the Romanesque style Eagle Warehouse.

The Greek Revival Buildings were built between 1836 and 1839. Some contain old wooden poled awnings which date back to the last half of the 19th century. These buildings are most notable for their heavy cornice and window articulation. The windows all have distinct sills and a variety of interesting lintel treatments.

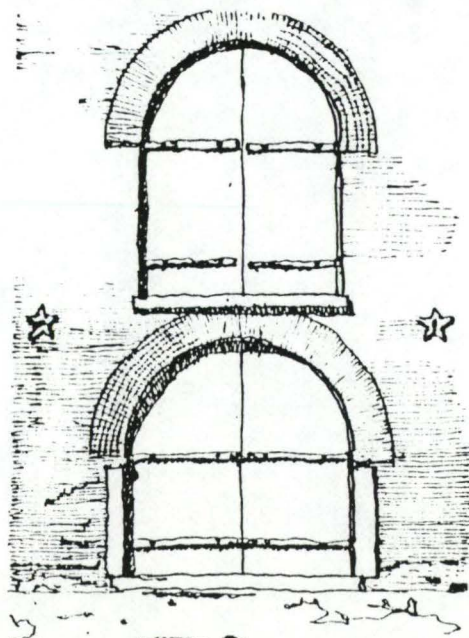
The Long Island Safe Deposit Company building was built in 1868-1869. This italianate style building is done in cast iron with forms derived from the Venetian Renaissance palaces. The building articulation includes rustication, scroll work, subtle dental cornice and lacy window detail.



The brick Eagle Warehouse sits heavily on the street in a Neo-Romanesque style. It has a variety of brickwork details including crenelations. The entrance is a heavy rounded arch bearing the company name. The arch frames a bronze fleur de lis spiked entry gate. It was built in 1870.

The Waterfront

The lone example of the bustling days of waterfront activity is the Empire Stores. This building is typical of those that once lined the water's edge. The building is a subtle Romanesque composition done in brick with a soft cornice and heavy brick arched openings. It is decorated with star shaped tie rod ends. The wooden hoists, used to lift goods in and out of the warehouse, still sit in place on the waterfront side.



The Empire Stores

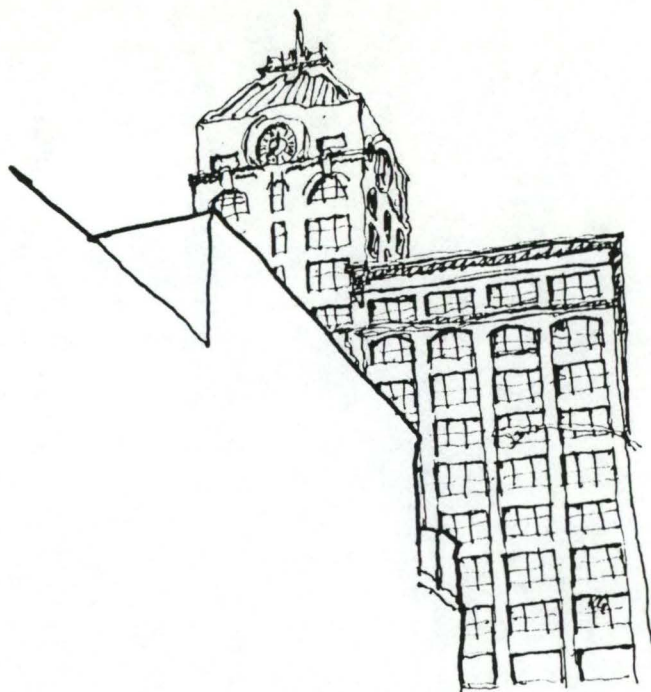
Industrial Buildings

The two strongest pieces of industrial architecture are Gair 7 and The Sweeney A building. These buildings sit caddy cornered on Main and Water Streets.

Gair 7 is the visual landmark of the area with it's four story victorian clock tower perched atop the body of the building. The base of the reinforced concrete structure is rusticated. The body of the building is articulated by the structural grid with the voids in the fenestration filled by industrial metal sash windows. The top of the building is wrapped by a cornice.

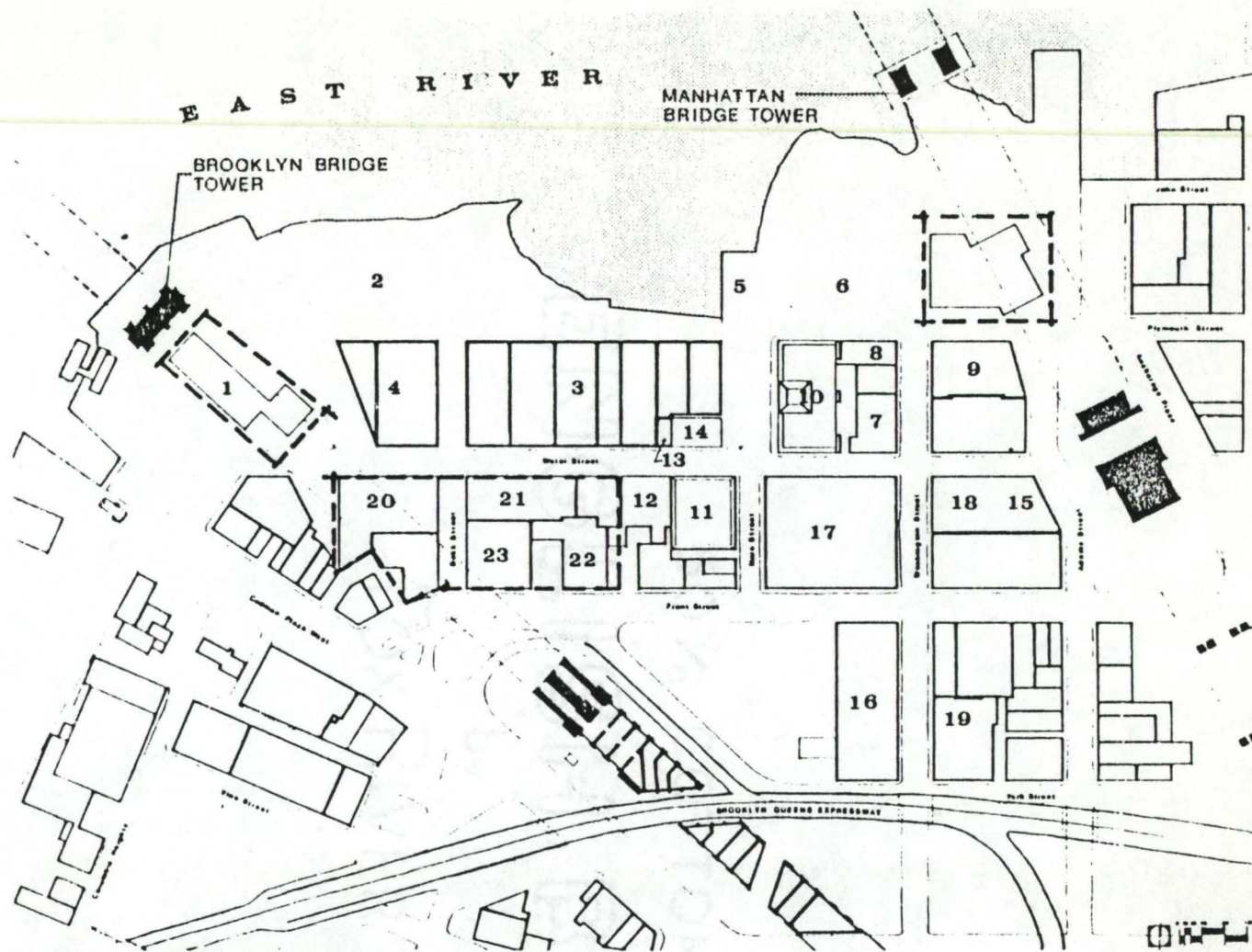
Sweeney A is most notable for it's wide cornice which contains the company name. It's body articulates the structural grid with the column articulation being rusticated up to the bottom of

the cornice.



Gair 7

SITE ANALYSIS



BUILDING AREA ANALYSIS

Area for potential development - - - -

BUILDING/AREA DESCRIPTION

Purchase Building (1) - is unrelated to the primary historic development of the area. Sitting under the Brooklyn Bridge it conflicts with the integrity of J.R. Roebling's structure. Built in the 1930's, it is a two story masonry structure wrapped by horizontal strips of brick, concrete and glass. The building blocks views and access to the ferry and the East River.

Empire Fulton Ferry State Park (2) - Once a teeming dock with piers extending into the East River. Today it is underused prime waterfront real estate providing excellent views of Manhattan.

Empire Stores (3) - Of the two stores built for the Nessmith family, the four story structure to the west was the first to be built in 1870. The decade younger five story building to the east was designed in 1880 by architect Thomas Stone in a similar style. These heavy timber structures were covered with brick in a neo-romanesque style. Heavy masonry arches, subtle corbled cornices, and star shaped tie rod ends are significant details of the buildings. These buildings represent the prosperous commercial activity of post civil war Brooklyn. These warehouses served as a distribution center for raw materials such as coffee beans, animal hides, grains, raw sugar and molasses shipped from Africa, South America and Cuba.

Tobacco Inspection Warehouse(4) - Usually considered part of the Empire Stores, this building has been greatly altered. The present two story structure was originally a five story rectangular building. It was cut to two stories in the last half of the century and altered to a

trapezoidal shape during the construction of the New Dock Street. In the 1890's, ninety percent of Brooklyn's tobacco trade was handled here. The building contains an awning and loading dock typical of warehouses in the area.

Main Street Wharf(5) - Once a bustling waterfront area with the dock for the Catherine Street ferry, this area today contains a derelict pier and warehouse.

Manhattan Bridge Area(6) - This is a nearly vacant lot containing a small non descript building of no architectural significance.

Gair 1,2,7, and Power Plant - This area contains three major buildings which are illustrative of different techniques of late 19th and early 20th century commercial construction.

Gair 1 (7) is a six story building of timber construction with a brick facade. Sensitive brickwork highlighted by a rich cornice, and multi-paneled windows form handsome well-scaled facades. The Power Plant (8) is a brick structure attached to Gair 1 on Plymouth Street. It is four stories in height and somewhat deteriorated.

Gair 2 (9), similar to Gair 1 has a brick facade broken into base, shaft and capital.

Built in 1917 Gair 7 (10) is visually the most distinctive building in the Fulton Landing area. It contains a four story clock tower acting as a visual landmark rising out of it's twelve story body. Gair 7 is a fine example of reinforced concrete construction whose elevations reflect it's structural grid. Metal industrial sash is placed within the grid, while traditional elements as the wrapping cornice work

articulate the structure.

Sweeney A (11) is an 11 story reinforced concrete commercial structure. The Main and Water Street facades are organized in repetitive bays with the structure being accented by the heavy cornice bearing the name of the Sweeney Company.

Sweeney B (12) is an example of a simple utilitarian style building. This six story structure is of timber and masonry. It's elevation is articulated by twelve bays with the street level containing a cast iron entry.

No. 85 Water Street (13) is a small three bay, four story, late federal style design built in 1835. Originally a residence on a commercial street, it was converted in 1880 to a commercial building.

The Stable (14), similar to No. 85, the stable is a building unique to the area. It is a one and a half story reinforced concrete structure that was built in 1905. The building is notable for it's pitched roof and dental detailing.

Gair 3,4,5,6 are all examples of reinforced concrete commercial structures. Numbers 4 (15), 5 (16), and 6 (17) are not in themselves distinctive, but make significant contributions to the coherence of the area. No. 3 (18) has been noted as the first absolutely fireproof monolithic factory building in New York and possibly the country.

Gair 8 (19) is a collection of three buildings , the most significant of which is the late 19th century six story building along York Street. This brick structure has notably handsome detailing. Of some interest is the small multi

story building on Washington Street which follows the common 19th century approach to organization of the street facade.

Light Manufacturing Buildings - This group consists of the Department of General Services (DGS) garage (20), Manhattan Milling (21), Nova Clutch (22), and the Jordano building (23). These buildings while containing some vital light industry do not contribute to the historic or visual quality of the area. The buildings are in satisfactory condition but are of no architectural quality and are of limited development potential.

Building Analysis Conclusion Chart

- 1- Purchase Building
- 2- Empire/Fulton Ferry State Park
- 3- Empire Stores
- 4- Tobacco Warehouse
- 5- Main Street Wharf
- 6- Manhattan Bridge Area
- 7- Gair 1
- 8- Gair 2
- 9- Gair 7
- 10- Gair Power Plant
- 11- Sweeney A
- 12- Sweeney B
- 13- 85 Water Street
- 14- Stable

HISTORIC RESOURCES	VISUAL CHARACTER	PHYSICAL CONDITION	AESTHETIC VALUE	ECONOMIC POTENTIAL

- 15- Gair 3
- 16- Gair 4
- 17- Gair 5
- 18- Gair 6
- 19- Gair 8
- 20- DGS Garage
- 21- Manhattan Milling
- 22- Jordano Building
- 23- Nova Clutch

KEY:





















Poor

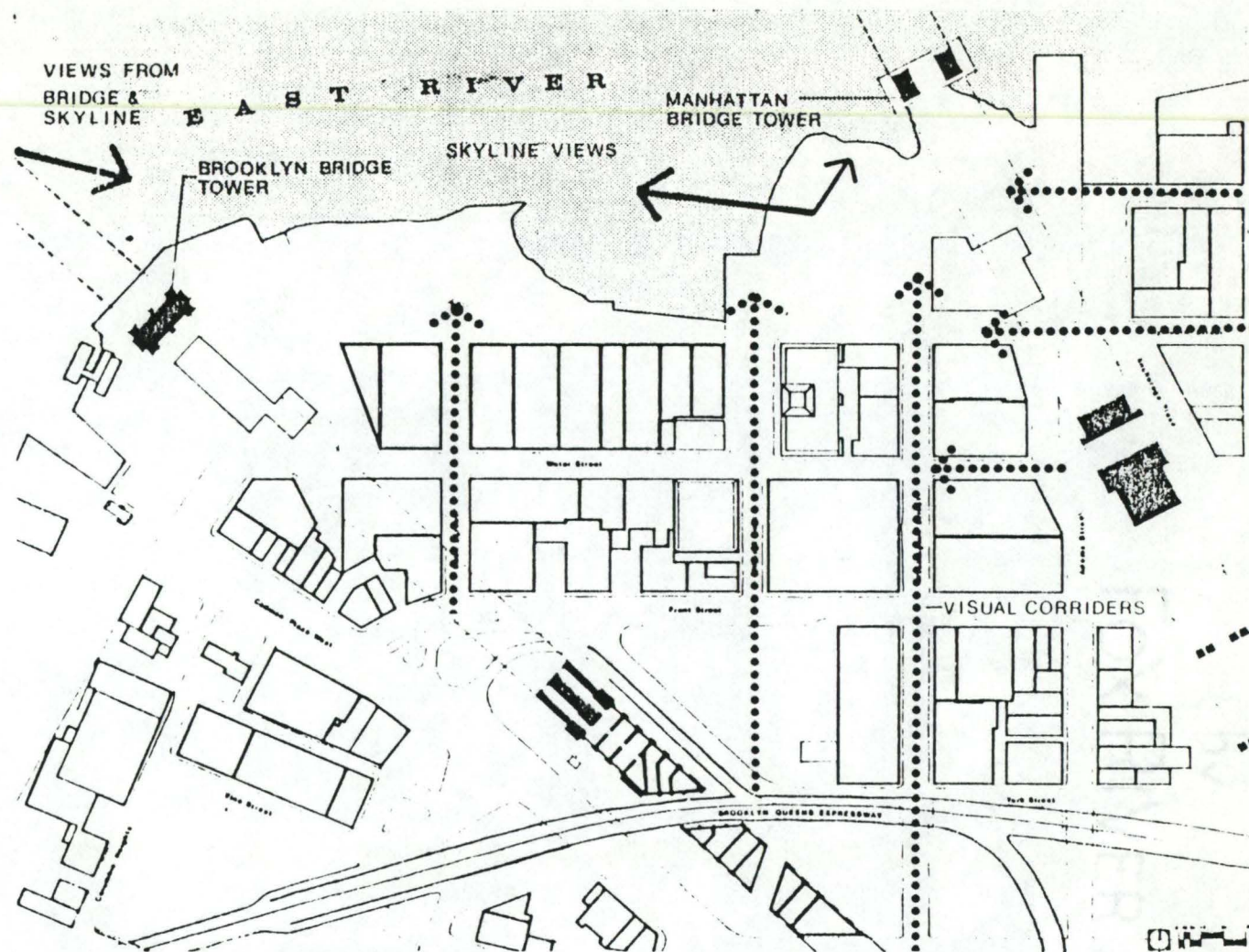
Fair

Good

Excellent

[illegible]



VISUAL ANALYSIS

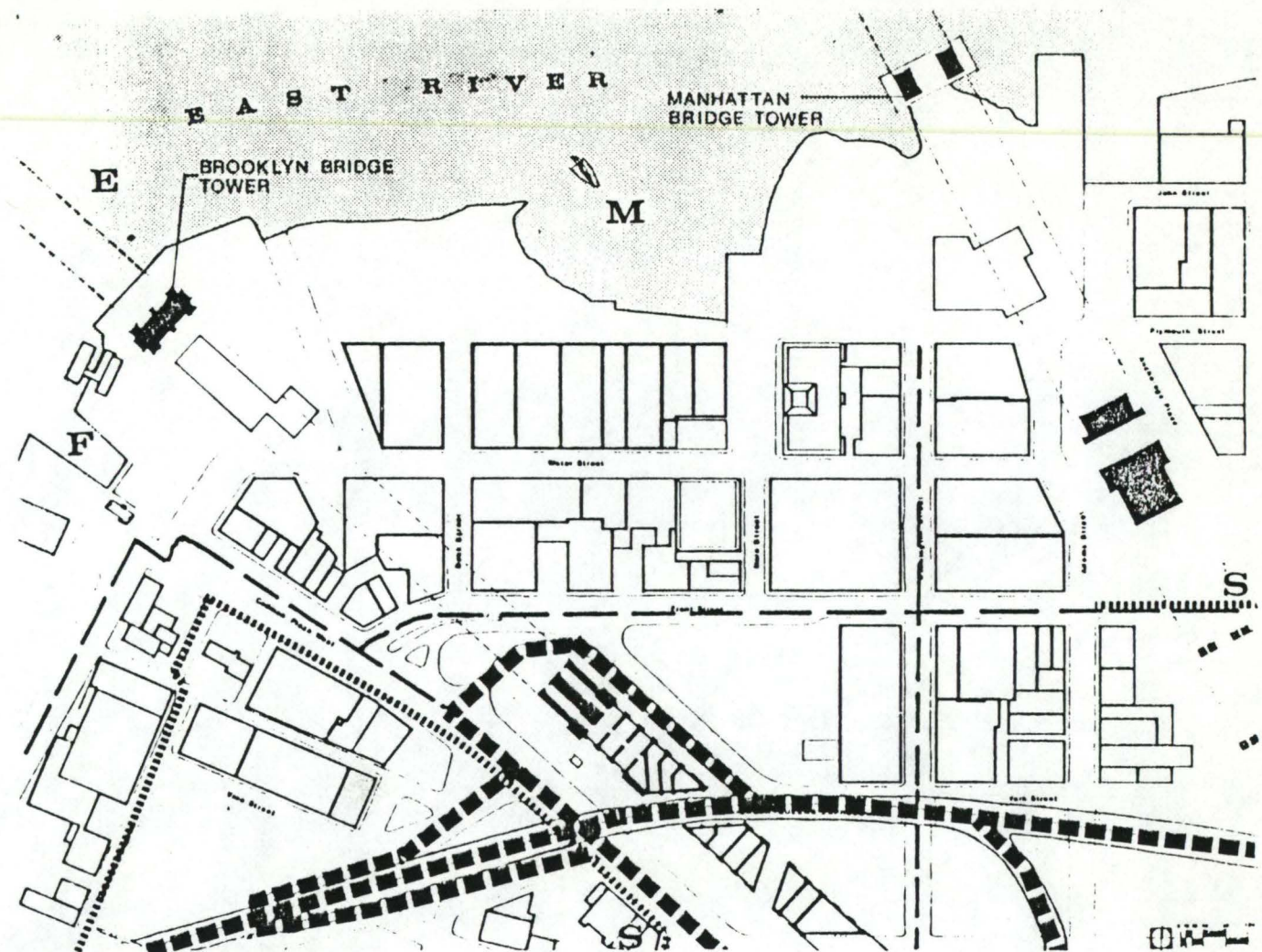
KEY:

Views



Visual Corridors





MOVEMENT

KEY:

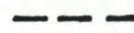
Major Vehicular



Ferry

F

Minor Vehicular



Marina

M

Pedestrian

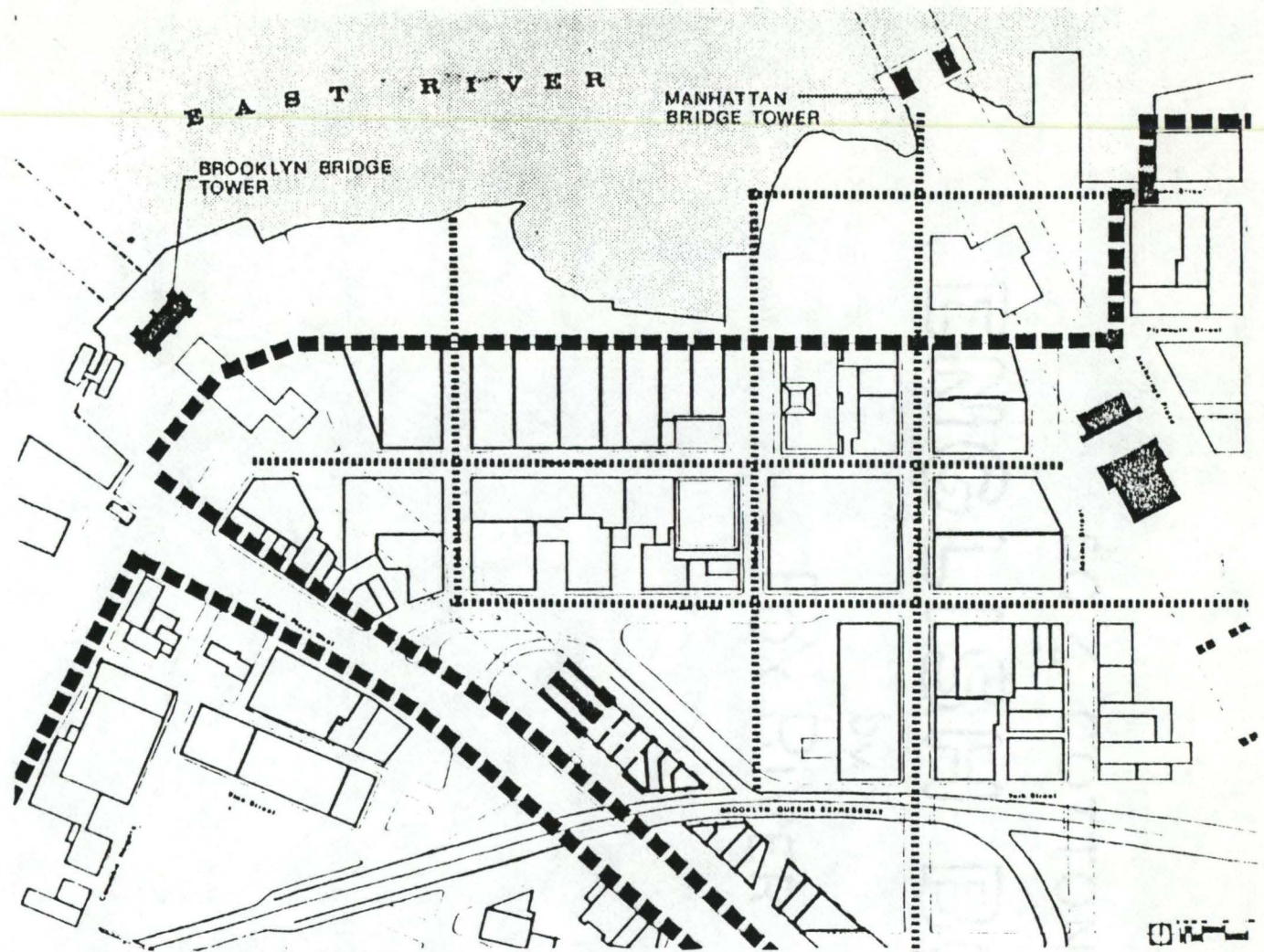


Excursion Boat

E

Subway Stations

S



URBAN PATTERN

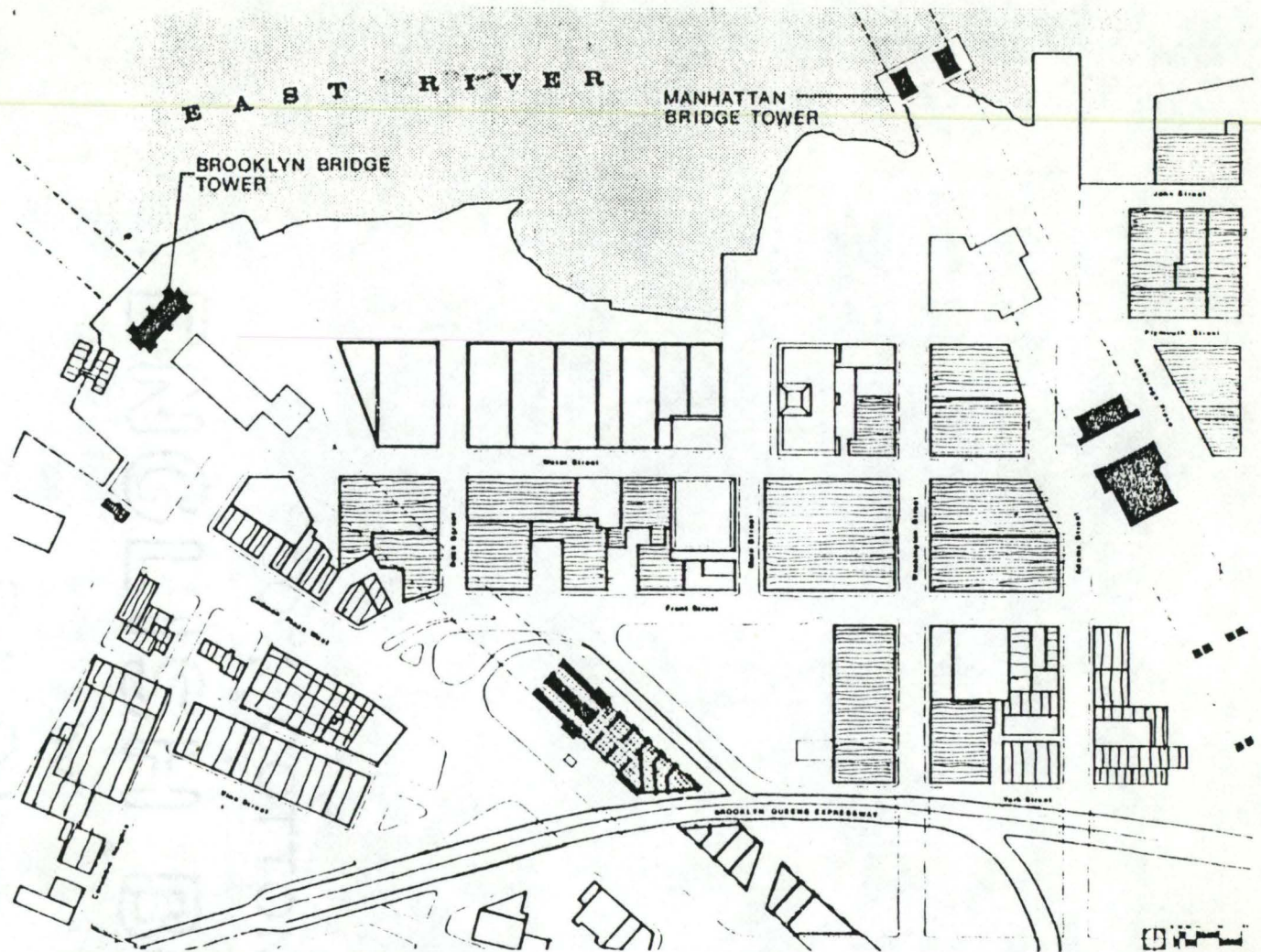
KEY:

Edges



Street Grid Pattern

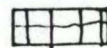




EXISTING LAND USE

KEY:

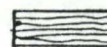
Residential



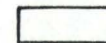
Municipal



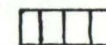
Manufacturing

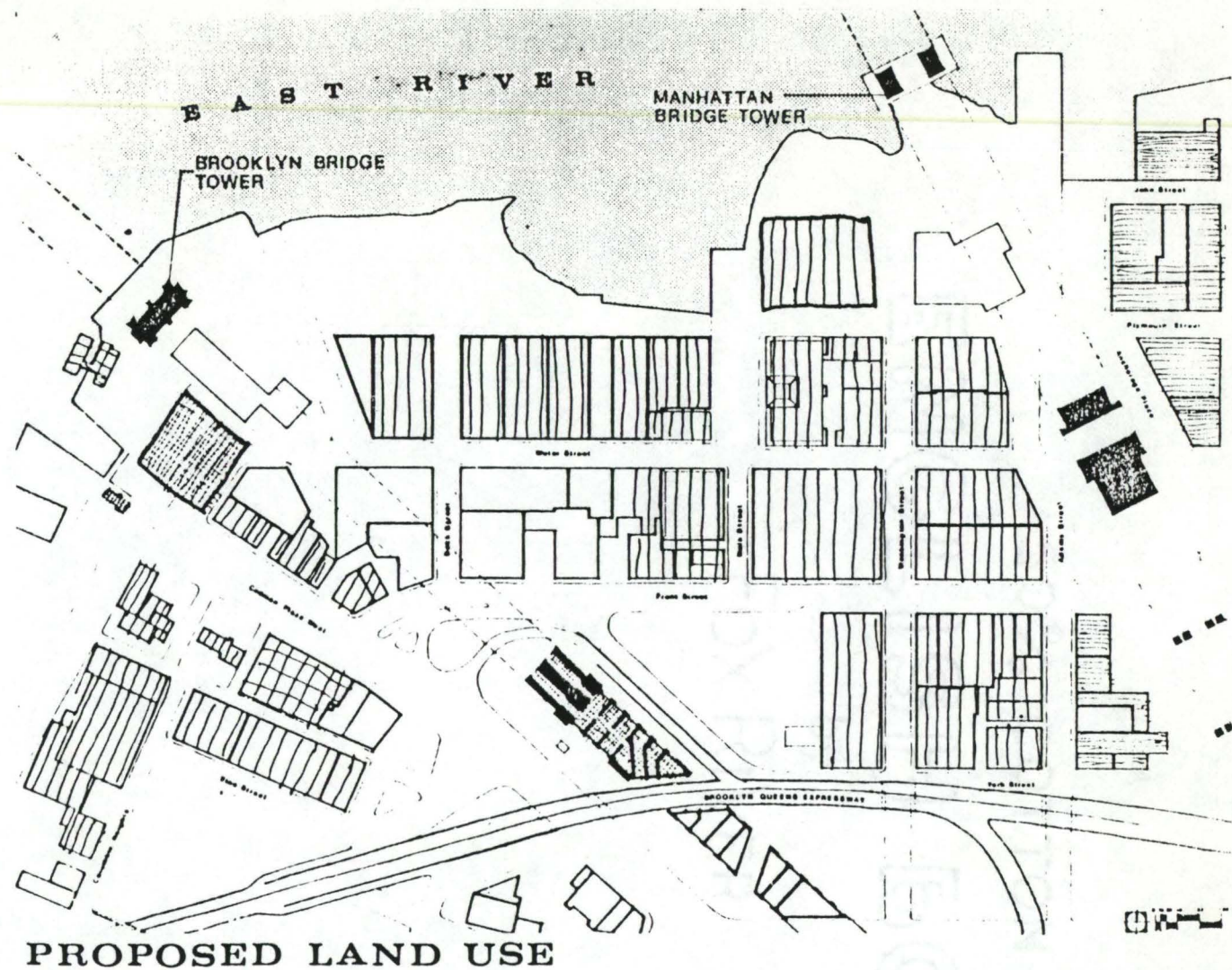


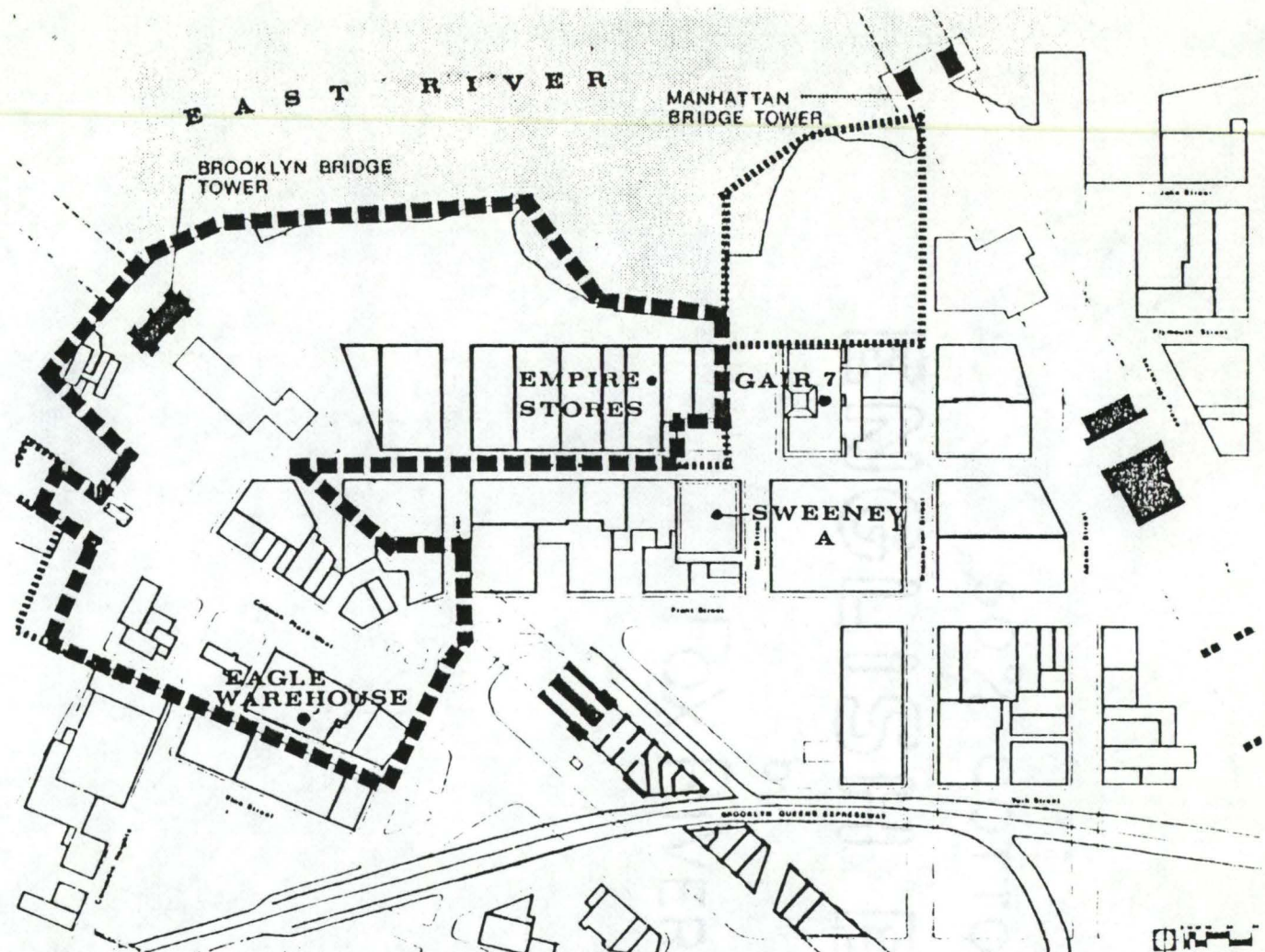
Vacant



Commercial







HISTORIC AREAS & BUILDINGS

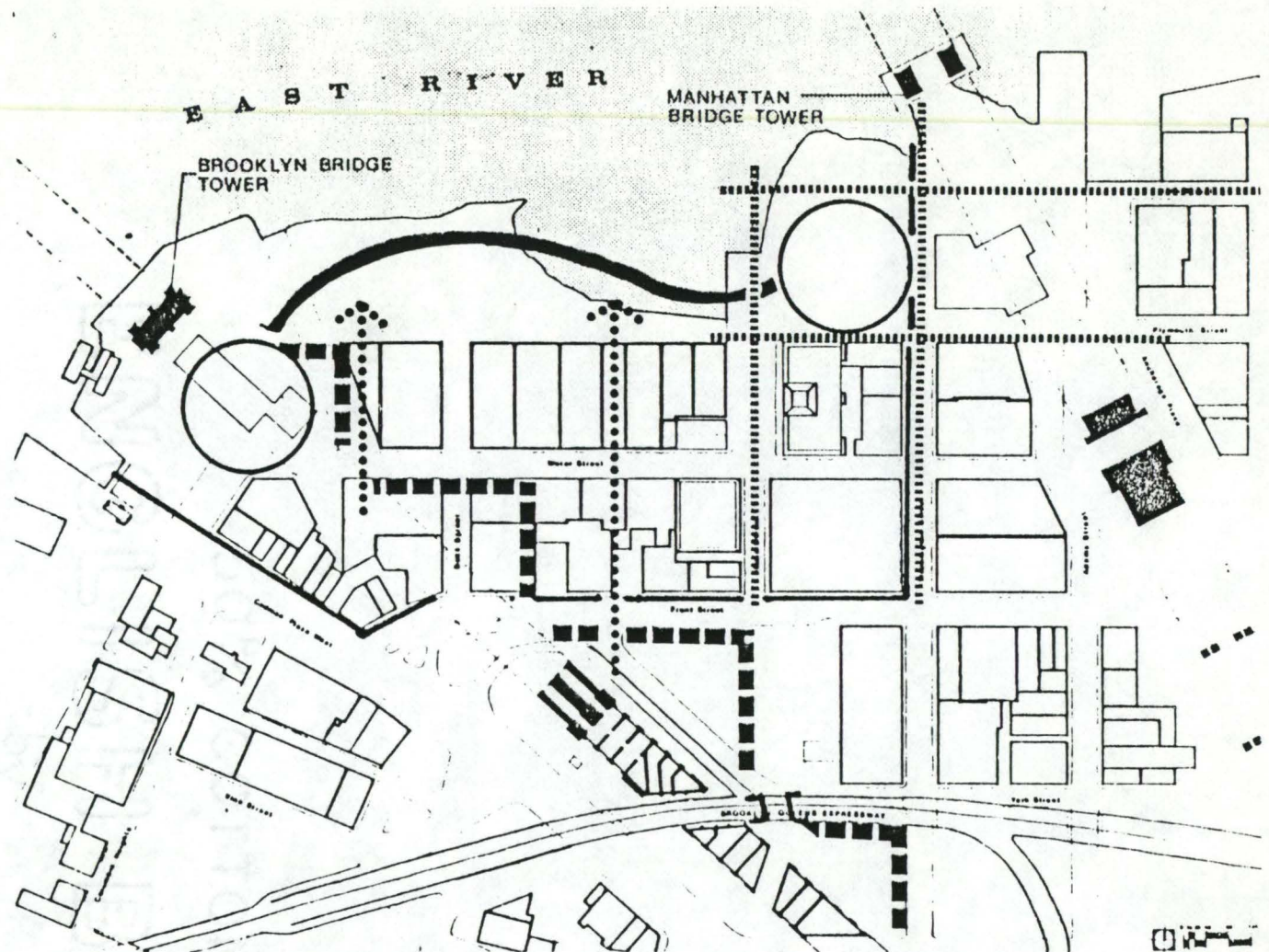
KEY:

N.Y.C. Historic District



National Register of Historic Places





SITE CONCLSIONS

KEY:

Green Space

Generators

Proposed Visual Corridors

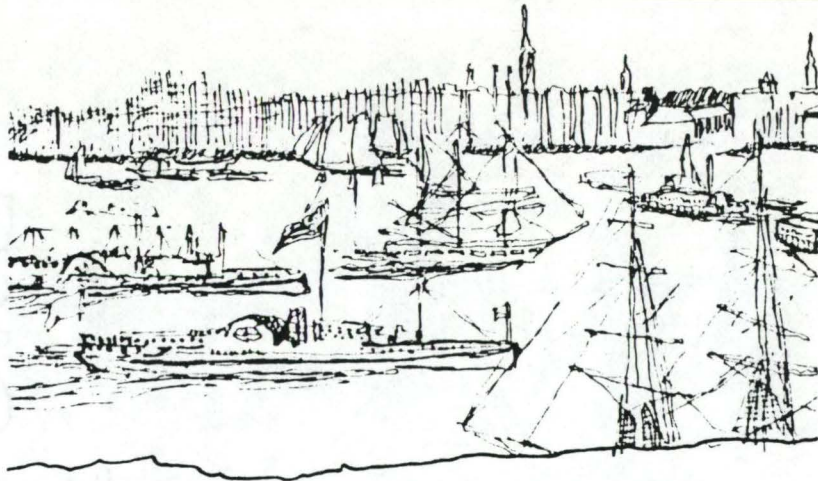
Pedestrian Precinct Boundary

Waterfront Pedestrian Link



**THE
WATERFRONT**





The East River from Brooklyn Heights



The river, around 1900, as seen from the Empire Stores

INTRODUCTION

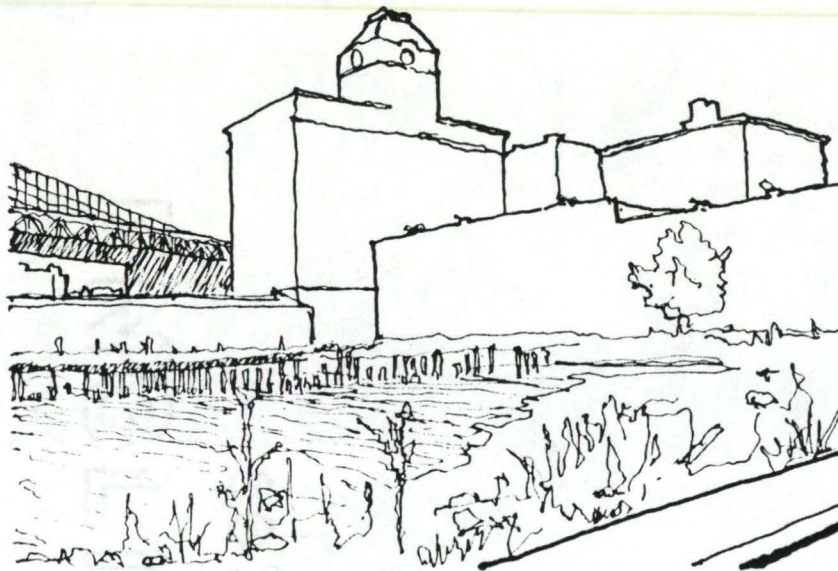
Much of the New York City Waterfront is in a deteriorated state and it's present use is inconsistent with their potential development. The Fulton Landing area has one of the most spectacular views in New York yet it's current uses do not capitalize on this. The site contains a Municipal Supplies Salvage Warehouse which blocks the view of the base of the Brooklyn Bridge, an automobile repair shop for the city vehicle fleet, and a bridge paint shop. The Empire-Fulton Ferry State Park is open for only limited hours and has had limited use to date. The Empire Stores are currently closed.

SIGNIFIANCE OF THE WATERFRONT TO NEW YORK

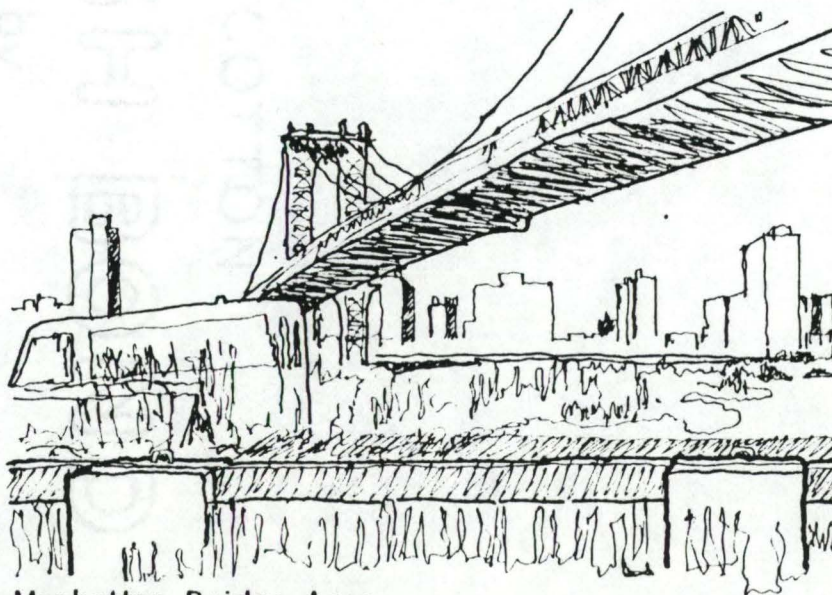
New York's natural waterways were the single most important factor in making New York the diverse ethnic community and leading business center it is today. Today there are many landmarks and much history to remind us of the importance of the waterfront in the existence and development of New York.

Henry Hudson discovered New York by water. New Amsterdam's importance as a trading center between Europe and the New World depended on the ocean. By the 1800's, New York had become the leading seafaring city of America. It was both a domestic and international trading center and the leading shipbuilding city. This intense marine activity led New York to become an active commercial industrial, and financial center as well.

At the turn of the century and into the 1900's, the United States became the land of hope and



View from the state park



Manhattan Bridge Area

freedom for millions of european immigrants. New York was the first site for most of those immigrants and the Statue of Liberty remains a symbol of these expectations.

EXISTING CONDITIONS

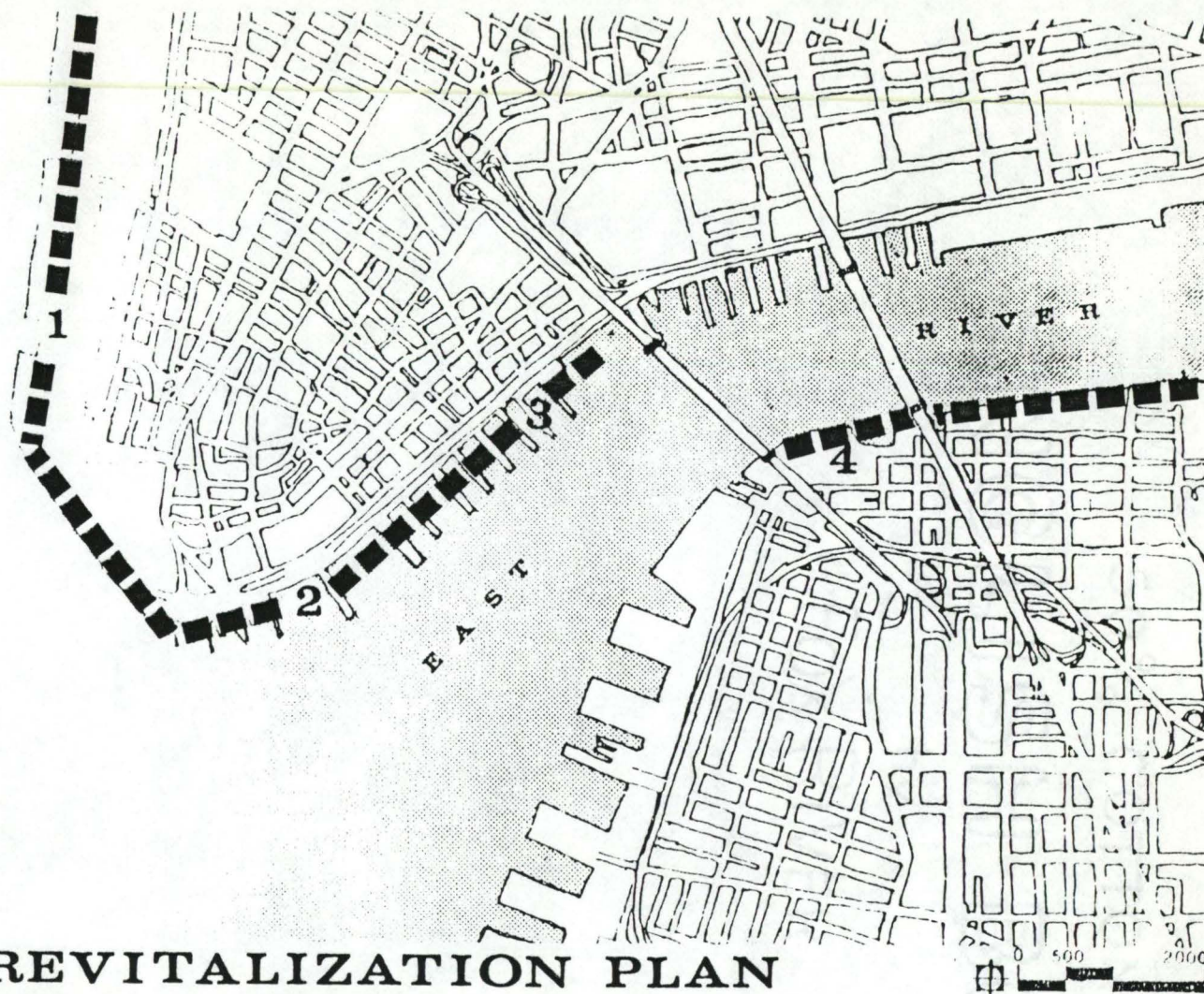
Despite this water heritage, much of New York's waterfront has fallen into dis-use. Larger ships and new equipment and needs have shifted marine activity from the piers of the East River to those along the Hudson. While some areas have taken on alternative uses most have become run down and isolated. Fulton Ferry is one such area.

REVITALIZATION PLAN

The Lower Manhattan Waterfront Plan and the Urban Cultural Park proposal constitute steps to revitalize the waterfront for public use.

The Lower Manhattan Waterfront Plan has three components: Battery Park City, Manhattan Landing, and South Street Seaport. Battery Park City, the largest private mixed use development in North America, is now under construction. South Street Seaport is now functioning as an active part of the Urban Cultural Park System. The second phase of construction, a pier pavilion, is under way.

Efforts are being made to continue this trend across the river to the Brooklyn shoreline. The link between the South Street Seaport and Fulton Landing is historically strong and for this reason both are considered vital to the success of the revitalization plan and Urban Cultural Park system.



REVITALIZATION PLAN

KEY:

- 1- Battery Park City
- 2- Manhattan Landing
- 3- South Street Seaport
- 4- Fulton Landing

Guidelines

The New York City Planning Commission has established a set of basic guidelines for the Lower Manhattan Waterfront Plan. These have been adapted to apply to the Fulton Landing project.

- 1) Access to the Waterfront - Historically the Fulton Landing area has been devoted to cross river transportation by the ferry, and for commercial use related to shipping activity. It is therefore desirable to reestablish this relation of the waterfront to the surrounding areas and the central business district.
- 2) Retail and Service Opportunities - A successful waterfront development would depend to great extent on the commercial activities which were introduced to the area. They should be consistent with the area's background as well as provide an attraction to visitors.
- 3) Institutional Attractions- In order to convey the sense of history of Fulton Ferry, and to provide a well balanced experience of recreation, education and commercial activity consideration should be given to varying types of cultural attractions.
- 4) Continuity with the Existing City- New developments should take it's cues from the existing city fabric including streets, circulation patterns, open spaces, and building density and texture.
- 5) Improved Circulation Systems The confined space of the Fulton Landing area creates a situation of circulation of a limited capacity.

The streets are narrow and pose difficulty for large trucks making industrial deliveries. On the periphery of the area there are a series of pedestrian/vehicular conflicts. It is desired to obtain a solution to separate pedestrian from vehicular where ever possible.

- 6) Efficient Land Use- Because land is scarce in the city and subject to intense development, it is necessary to use land carefully and economically so as not to forfeit the amenities of open space vital to urban design.

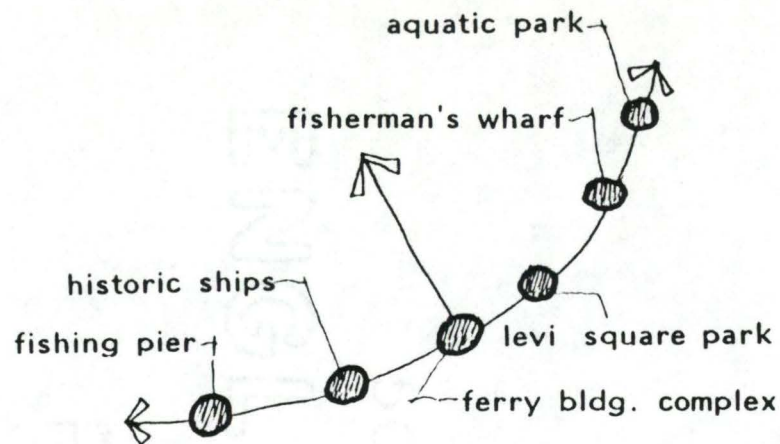
CONCLUSIONS

Fulton Landing has the opportunity to become a new center of marine travel through the development of recreational boating.

The waterfront could be re-established as an active commercial center through the development of retail and restaurant facilities.

CASE STUDIES





SAN FRANCISCO

In response to active concern, the San Francisco Board of Supervisors formed a Redevelopment Agency, Planning Department and Port, in 1977 to unify revitalization efforts. The agency developed an Action Plan that was to provide an overall framework. The following were the major goals of the plan:

- 1) To maintain existing water related industries.
- 2) Tourist areas are not to overload or compete with surrounding areas.
- 3) Meet the needs for public open space and access.
- 4) Reintegrate the waterfront with the city.

Initially plans were made for the industrial area on the Northeastern waterfront. Plans were also outlined for the development of additional marine and industrial activities to be located on the central and southern portions of the bay. These areas already had amenities advantageous to industry.

In order to foster interaction of waterfront and urban areas, the tourist areas were to become self supportive entities to be located and sized so as not to overload or compete with any other areas.

Public access would be improved by removing barriers to the waterfront, mainly the Embarcadero Freeway and parking under it and on open piers. The Embarcadero Roadway would become an attractively landscaped boulevard linking the different elements of the

waterfront. An historic rail link running along the road reduced the need for auto travel and parking. Additionally, a promenade would improve movement along the waterfront while pedestrian and bicycle ways would connect recreational areas and employment centers.

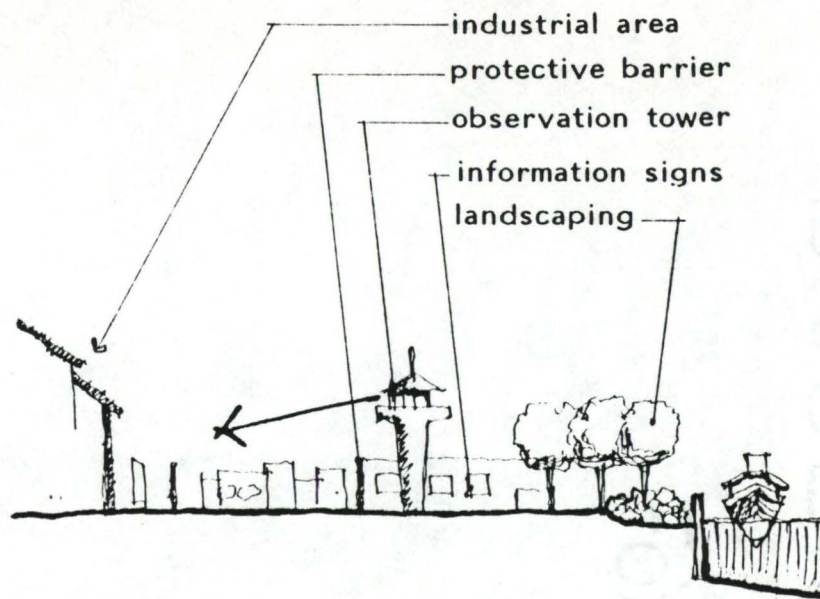
In an effort to reintegrate the waterfront and city, the building heights would step down to the water's edge, reflecting the city's natural form and capitalizing on views. The historic ferry building would be maintained at the end of the tree lined Market Street to serve as a landmark.

Conclusions

Establish continuity on the waterfront by use of a recreational promenade.

Respecting the existing urban fabric, maintain and enhance visual corridors.

Source: "San Francisco Pumps Life Into Waterfront"; *Landscape Architecture*, January 1980



Educational Path

Source: "Detroit River"; Landscape Architecture, May/June 1981

DETROIT RIVER

For it's waterfront plan Detroit's Downriver Community Conference focused on the following; 'Industrial forms are not necessarily objectionable, sometimes they are quite dramatic'.

In an attempt to open the waterfront to public use the DDCC has approached the existing industrial complexes, which occupy 70% of the waterfront land, as an amenity. While in order to create a desirable mixture of use, city planners encourage the use of vacant buildings for recreational use and commercial enterprise. Flourishing industries are encouraged to remain.

JJR/Detroit, the design firm in charge, has instead developed a plan to use the industries as part of the recreational experience. By developing a 'visual improvement plan', JJR/Detroit have enabled industry and recreation to co-exist and even benefit from one another by creating a sympathetic foreground to both uses, yet providing security for company owners from pedestrians along the riverside foot path. Berms and trees screen unsightly storage areas yet do not hide the higher building forms. A color code system educates the viewer to the function and intricacies of the industry. Interpretive displays and observation towers also add to the educational experience.

Conclusions

The industrial area will be treated as an amenity with the creation of an industrial education path.

**URBAN
CULTURAL PARKS**

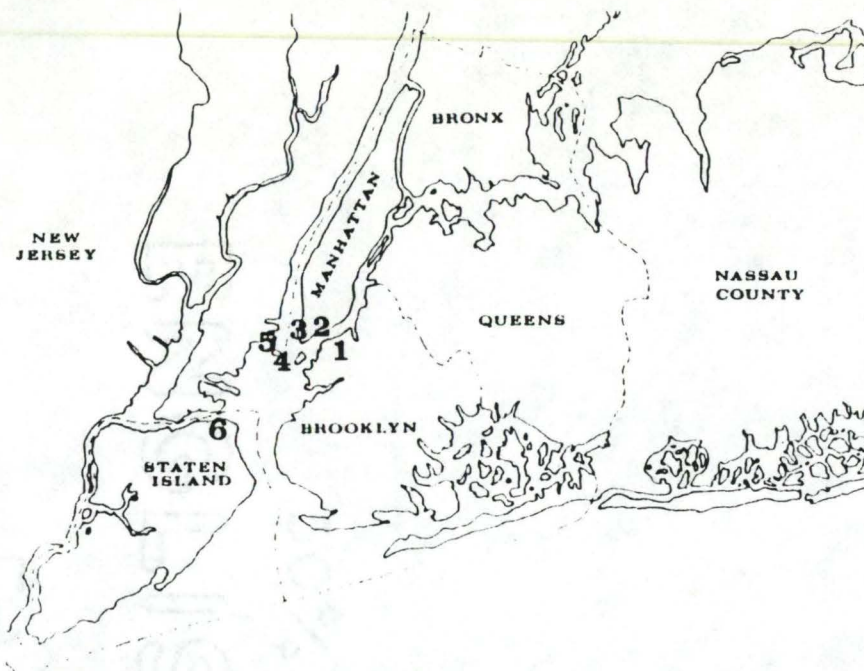


INTRODUCTION

In 1977 the New York State Legislature requested the Office of Parks and Recreation to prepare a plan for a statewide system of Urban Cultural Parks. An Urban Cultural Park (UCP) is defined as more than grass and trees where people can picnic and participate in recreational activities. In addition to providing the opportunity to enjoy natural features, an Urban Cultural Park should be keyed to a basic theme (historical, cultural, or social) which has shaped the educational, recreational, and economic character of New York.

The objectives of the statewide system of Urban Cultural Parks are:

- 1) To preserve and interpret important resources.
- 2) To respond to a growing constituency for the UCP idea.
- 3) To provide a catalyst to local efforts.
- 4) To respond to energy shortage and fiscal austerity.



HARBOR PARK MAP



KEY:

- | | |
|-------------------------|----------------------|
| 1- Fulton Landing | 4- Statue of Liberty |
| 2- South Street Seaport | 5- Ellis Island |
| 3- Battery Park | 6- Snug Harbor |

NEW YORK CITY HARBOR PARK

The waterfront as chosen by the Park's Council was the most appropriate aspect of New York City to emphasize in its Urban Cultural Parks. The proposed Harbor Park has six primary components. These components should display the major themes of the waterfront; marine trade, and immigration and migration.

SELECTED SITES

Statue of Liberty

The Statue of Liberty has since its dedication been a major tourist attraction. It is a symbol of the waves of immigrants who came to New York and a reminder of the important role the harbor has played in the development of New York's diverse ethnic communities.

Ellis Island

Ellis Island was the first stop for immigrants arriving in New York. It represented the beginning of a new life for the thousands who passed its immigration facilities. It is proposed to restore certain of the original buildings to serve as a Museum of Immigration.

South Street Seaport

The Seaport consists of eleven blocks of 18th and 19th century commercial buildings that already function as a component of the Harbor Park system. The preservation and restoration of counting houses, saloons, warehouses, hotels, markets and ships are a testimony to the significance of maritime trade in the history of New York City's commerce. The rehabilitation of the area provides for the

development of recreational, cultural, and sightseeing uses.

Snug Harbor Cultural Center

This center on Staten Island, illustrates the theme of maritime trade. It is an 80 acre park on the North Shore centered around the first retirement home for merchant sailors. A botanical garden, gallery, and a variety of cultural, educational and historical programs are in operation as well as walking tours of the harbor.

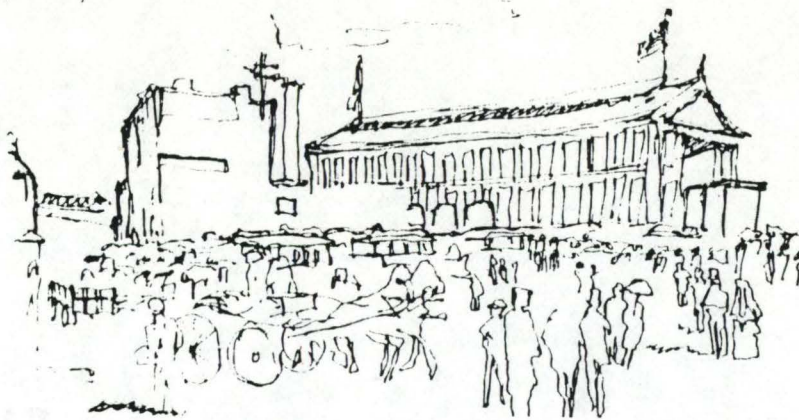
Battery Park

Battery Park is the point of departure for the Statue of Liberty and Ellis Island Ferries. Castle Clinton, originally constructed during the War of 1812, is a National Historic Monument which once served as the Immigration landing depot. Built in the 1880's, Pier A is the oldest active pier in New York City and is on the National Register of Historic Places. The East Coast Memorial to soldiers of World War II is located in the Park.

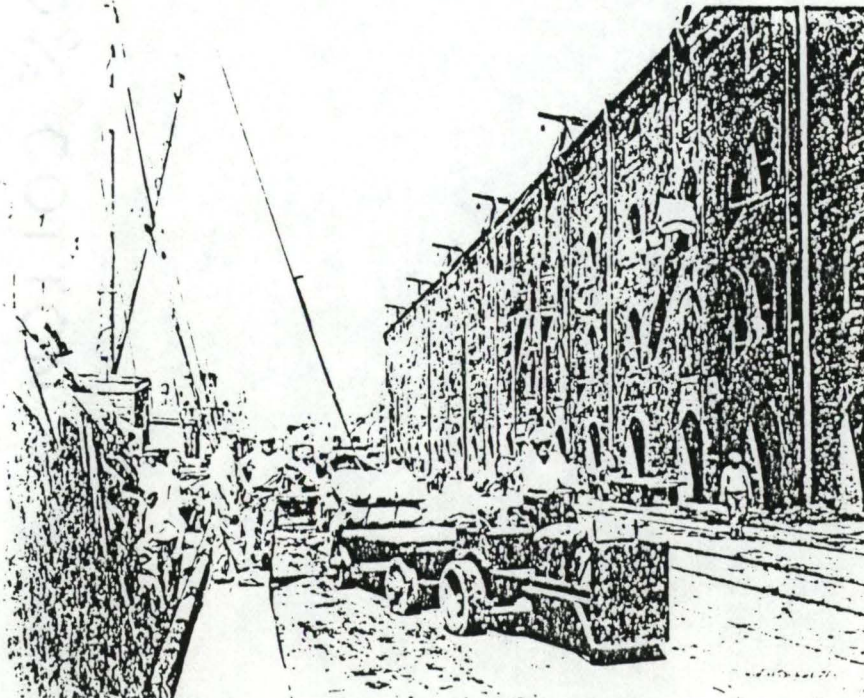
Guidelines

A report prepared to guide the Office of Parks and Recreation in the selection of UCP sites in New York City listed the following requirements:

1. To be consistent with the Urban Cultural Park description.
2. To demonstrate one or more of the historical, social, or cultural themes.
3. To have a broader than local appeal.



Bridge area as active transportation hub



Empire Stores at the turn of the century

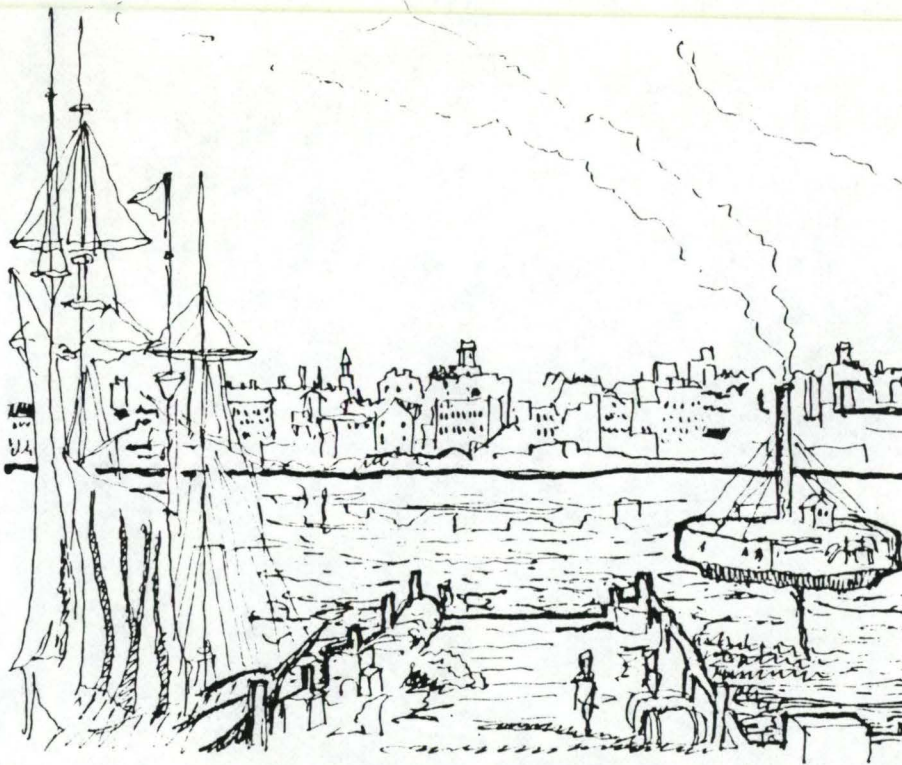
Additional Criteria would consist of:

1. The existence of historic structures with thematic significance.
2. Ease of public access to the site.
3. A good potential for revitalization.
4. Ongoing and visible interest by the community in development.
5. Potential for education and recreation programs.
6. Potential for tourism.
7. Open space.

THEMES FOR FULTON LANDING

The heritage of the Fulton Ferry and the Empire Stores area dictates a series of important themes. The history of these areas centers around marine commerce and transportation. The ferry's river crossings represents the link that enabled the growth of both Brooklyn and Manhattan. Commercially, it transferred goods from the Brooklyn shore to the Manhattan markets. As a means of transportation, it became the circulation hub of Brooklyn and allowed residential growth throughout the borough.

The Empire Stores represent the heydays of Brooklyn. The days when commercial warehouses lined the riverfront and ships docked at the river's edge carried goods from around the world.



Commercial marine activity on the river

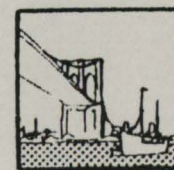
In the name, Fulton Landing, is a suggestion; that the area should once again become a 'landing'. The area has historically served as the gateway to Brooklyn, first with the ferry run and then the opening of the Brooklyn Bridge. The Urban Cultural Park at Fulton Landing should reflect that history.

The landing area itself should be re-established as an active commercial and transportation area. This requires that The Empire Stores and any other waterfront facilities house commercial activities that capitalize on their location. In creating an active transportation area, marine activity should be increased and pedestrian circulation routes reinforced. A clear pedestrian path should be created linking the waterfront to the downtown area. A shuttle bus of some sort may also be established running from the ferry dock to Boro Hall.

There should be facilities to allow for a variety of fairs, festivals, performances and demonstrations to convey the diversity of the borough of Brooklyn.

The areas beyond the landing should be included in the Urban Cultural Park scheme as well. Brooklyn Heights displays the era of residential growth in the early 1800's. An Industrial Education Trail should be created in the industrial area to convey the variety of industrial operations and the role of industry in the development of Brooklyn.

**ECONOMIC
DEVELOPMENT**



Changes in Employment Shares by Major Industries

1971 and 1982

	NEW YORK CITY		BROOKLYN	
	1971	1982	1971	1982
Total*	100.0%	100.0%	100.0%	100.0%
Manufacturing	24.0	16.8	38.6	26.3
Contract Construction	3.5	2.9	3.5	3.6
Transportation/Public Utilities/Communication	10.2	8.7	9.5	7.2
Trade	23.5	21.1	23.9	24.2
FIPE	14.8	17.1	6.1	6.5
Services	23.7	32.9	18.2	31.5

Base Industry Chart

INTRODUCTION

The decline in employment in Brooklyn over the past decade exceeds that of New York as a whole. Between 1971 and 1982 employment in Brooklyn declined by 18%. Manufacturing employment declined by 44% while the service sector employment increased by 42%. For the first time service employment exceeded manufacturing employment. City efforts are underway to increase employment opportunities in Brooklyn. The waterfront revitalization and Urban Cultural Park objectives emphasize the importance of mixed use development to improve the economic composition of Brooklyn.

There are three major areas that need to be addressed to insure strong economic development as a result of the Fulton Landing project. They are;

- 1) Preserving the manufacturing district that lies east of the Fulton Landing site.
- 2) Establish an environment so that Brooklyn may share in the growth of the Finance, Insurance, and Real Estate sector (FIPE).
- 3) Provide sufficient commercial, retail, and restaurant facilities to permit Fulton Landing to be economically viable.

THE MANUFACTURING DISTRICT

Once a booming industrial district whose paint production, printing, metal stamping and lead processing plants served the Brooklyn Navy Yard as well as the city as a whole, has been diminishing in importance since World War II.

Firms in the area now provide 1690 jobs. While this is an important job base, it is a significant decrease from the 1972 figure of 2029. Space which has been vacated is generally concentrated in individual buildings (10 Jay Street, 50 Pearl Street, and 231 Front street) which need substantial rehabilitation before they can be marketed. If these structures can be rehabilitated and leased, the industrial climate would be stabilized. The city has begun an extensive outreach effort to involve the owners in various economic programs.

FIRE

Based on recent performance, the FIRE sector includes what are generally regarded as New York City's most promising growth areas. Brooklyn however, has not shared in this growth. Citywide, FIRE employment increased 8% between 1971 and 1982. In Brooklyn, employment in this sector decreased by 12%. Fire employment expanded by 27% in Queens, 8% in Manhattan, and 45% in Staten Island. FIRE's share of total employment in Brooklyn grew at half the rate vs. its share of the city as a whole. The borough's job base might expand if firms in the FIRE sector were persuaded to relocate in Brooklyn.

Fulton Landing

The proposed waterfront revitalization of the Fulton Ferry area is of vital economic importance to the borough of Brooklyn. With its valuable real estate and the movement in the city to reclaim the waterfront, it has the necessary ingredients to initiate economic development in the borough. In order that the

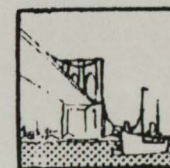
project meet it's goals it is necessary for it to become a well balanced and self supportive mixed use community.

CONCLUSIONS

Fulton Landing can be used as a catalyst to increase FIRE sector business in Brooklyn's central business district.

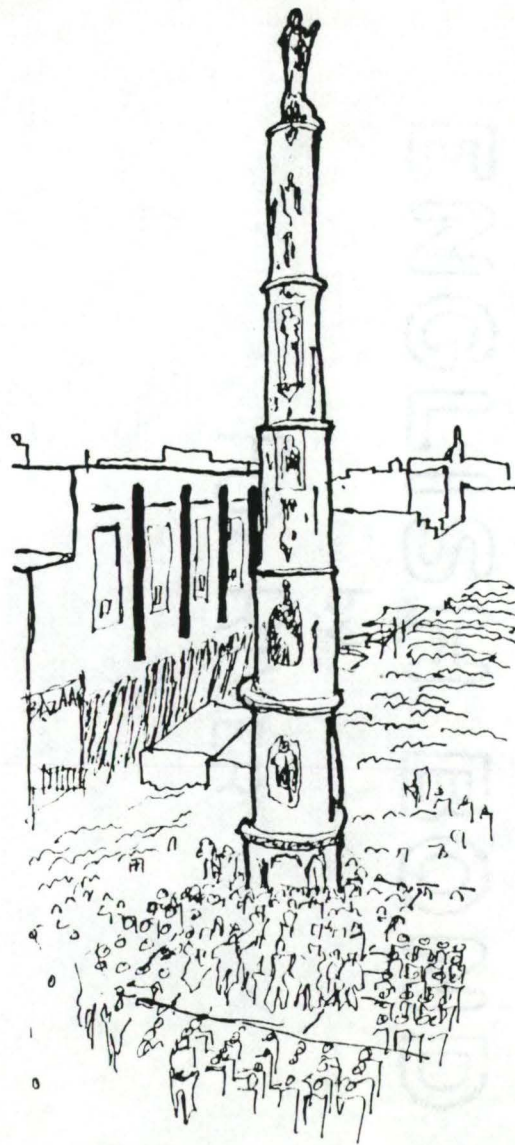
The Brooklyn Heights area should be maintained as the strong residential area it is and the manufacturing area under the Manhattan Bridge should be stabilized.

**DESIGN
PROGRAM**



MAJOR DESIGN ISSUES

- 1) The diverse culture of Brooklyn is its most valuable asset and must be capitalized on.
- 2) The significant historic relationship between Brooklyn and New York should be symbolized through linkage of New York City Hall and Brooklyn's Borough Hall.
- 3) The waterfront was the main resource in the development of Brooklyn as a powerful center of commerce. Its relation with Downtown Brooklyn must be recreated.
- 4) Fulton Landing has the opportunity to become a new center of marine travel through the development of recreational boating.
- 5) The waterfront could be re-established as an active commercial center through the development of retail and restaurant facilities.
- 6) Fulton Landing can be used as a catalyst to increase FIRE sector business in Brooklyn's central business district.
- 7) The Brooklyn Heights area should be maintained as the strong residential area it is and the manufacturing area under the Manhattan Bridge should be stabilized.
- 8) The Fulton Landing project should truly be the 'landing' and starting point of the Urban Cultural Park experience in Brooklyn.



An ethnic festival in Brooklyn

WATERFRONT ACTIVITIES

MARINE TRANSPORT & RECREATION

Ferry

A proposed ferry service to run the historic route from the old Fulton Slip to South Street Seaport and Wall Street would require docking facilities, a ticketing, waiting and information area.

Circle Line

Scheduled stops by the three hour excursion boat will need docking facilities, a ticket check station, and waiting area.

Harbor Park Shuttle

A shuttle boat linking the six components of the New York City Harbor Park must have docking facilities, an information area, a ticket booth and waiting area.

Recreational Boating

Recreational boat marina for temporary stays of 24 hours or less. A marina providing between 50 and 100 slips for various boat sizes, A small yacht club building with administrative and support facilities should be provided.

CULTURAL

Festivals

Ethnic festivals of a variety of cultures and sizes will need large open space with a central area for main events. Smaller spaces and pavilions for sale and demonstration of ethnic

foods and crafts should also be included.

Fairs

Holiday celebrations (fourth of July) or commercially supported functions (boat or car shows) which may use the same facilities that are available for festivals.

Concerts

Concerts by local cultural groups, orchestras and popular artists. Both indoor and outdoor concert performance space will be used for these events.

Theater

Performances will be by various local dance, theatrical, or cultural companies, or a Broadway show. Both indoor and outdoor theater performances should be accommodated.

Demonstrations

Demonstrations of arts, crafts, and trades. An organized series of pavilions and exterior spaces should be provided.

Educational Trips

Elementary and secondary school trips organized to visit the cultural park, perhaps including visits to other cultural facilities in the area. To accommodate these trips, an orientation area and well defined circulation routes should be created.

Exhibits

Exhibits for both temporary and permanent

display will require space in connection with the Urban Cultural Park facilities.

Lectures

Cultural lecture series will need small auditorium space.

Films

A variety of cultural and educational film series will require a small auditorium space with projection room and necessary support facilities.

Information

Information for tourists entering the Urban Cultural Park and for display of park activities should have an office located near major tourist entries.

RECREATION & SPORTS

Walking

To handle the demands of pedestrian movement well defined circulation paths, lighted, with intermittent seating, and shading, and refuse containers are necessary. These paths should create links to and from Boro Hall, the Brooklyn Bridge Promenade, the Brooklyn Heights Promenade, and the industrial area. The Fulton Landing area should be highlighted by a waterfront promenade.

Jogging

Jogging will require a smooth uninterrupted path that is linked to pedestrian paths beyond the site.

Bicycling

Bicycling will require a well defined movement path, that is not rough textured, steps and severe level changes are to be avoided.

Roller Skating

Recreational roller skating by youngsters and young adults. Provide a path and an area of smooth texture which is located off of the main circulation paths.

Ice Skating

Recreational skating for the public in the colder months. Needs will include a large open space to contain a skating rink, plus provisions for storage and service space as required.

DINING & SHOPPING

Dining

Dining facilities will be provided for a variety of needs. A diversity from formal dining to specialty fast food counters will be desirable. Considerations are to be given to outdoor dining areas.

Shopping

Retailing will include a large mix of specialty tenants including first quality factory outlets selling direct to consumers and wholesalers. A variety of goods will be available including imported arts and crafts. The area will be considered as shopping facilities for area workers, residents, tourists, and regional visitors.

Open Air Market

The open air market will provide booths and pavilions for the sale of food and goods by local merchants.

ACTIVITY ANALYSIS

Activity/Season Analysis

No use



Mild use



heavy use



very heavy use



MARINE TRANSPORT & RECREATION

Ferry

Circle Line

Harbor Park Shuttle

Recreational Boating

CULTURAL

Festivals

Fairs

Concerts

Theater

Demonstrations

Educational Trips

Lectures

Films

Exhibits

	SPRING	SUMMER	FALL	WINTER
Ferry	heavy use	heavy use	heavy use	heavy use
Circle Line	heavy use	heavy use	heavy use	No use
Harbor Park Shuttle	heavy use	heavy use	heavy use	heavy use
Recreational Boating	heavy use	heavy use	heavy use	No use
Festivals	heavy use	heavy use	heavy use	No use
Fairs	heavy use	heavy use	heavy use	No use
Concerts	heavy use	heavy use	heavy use	No use
Theater	heavy use	heavy use	heavy use	heavy use
Demonstrations	heavy use	heavy use	No use	No use
Educational Trips	heavy use	No use	heavy use	No use
Lectures	No use	No use	heavy use	heavy use
Films	No use	No use	heavy use	heavy use
Exhibits	heavy use	heavy use	heavy use	heavy use

Information

RECREATION & SPORTS

Walking

Jogging

Bicycling

Roller Skating

Ice Skating

DINING & SHOPPING

Dining

Shopping

Open Air Market

	SPRING	SUMMER	FALL	WINTER
Information	heavy use	heavy use	heavy use	heavy use
Walking	heavy use	heavy use	heavy use	heavy use
Jogging	heavy use	heavy use	heavy use	heavy use
Bicycling	heavy use	heavy use	heavy use	heavy use
Roller Skating	heavy use	heavy use	heavy use	No use
Ice Skating	No use	No use	heavy use	heavy use
Dining	heavy use	heavy use	heavy use	heavy use
Shopping	heavy use	heavy use	heavy use	heavy use
Open Air Market	heavy use	heavy use	heavy use	No use
	No use	No use	No use	No use
	No use	No use	No use	No use
	No use	No use	No use	No use

Activity/Frequency Analysis

MARINE TRANSPORT & RECREATION

Ferry

Circle Line

Harbor Park Shuttle

Recreational Boating

CULTURAL

Festivals

Fairs

Concerts

Theater

Demonstrations

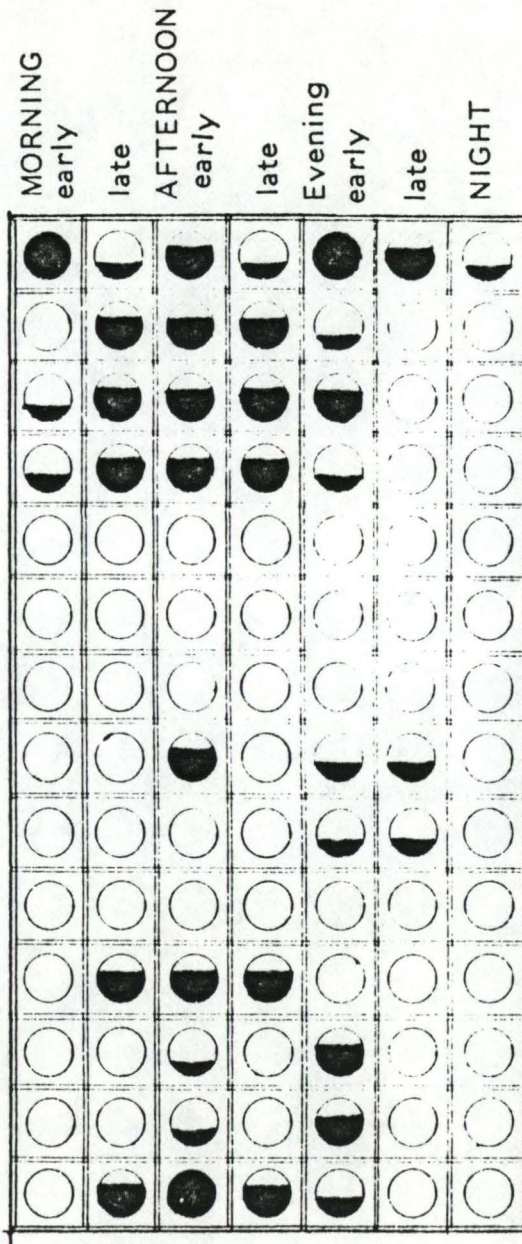
Educational Trips

Lectures

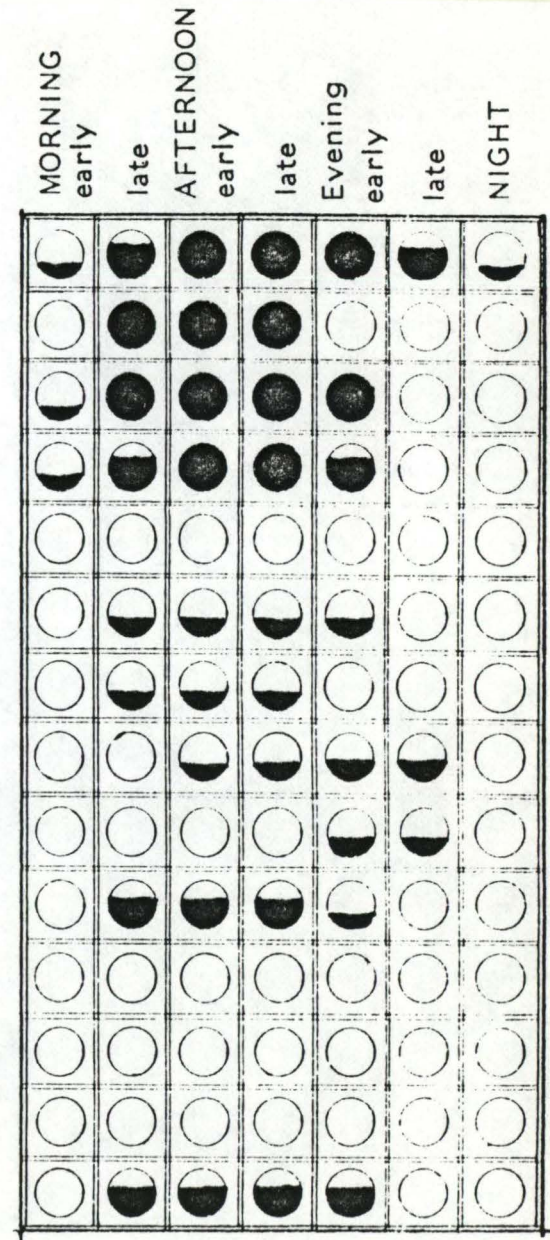
Films

Exhibits

WEEKDAY



WEEKEND



Information
RECREATION & SPORTS

Walking

Jogging

Bicycling

Roller Skating

Ice Skating

DINING & SHOPPING

Dining

Shopping

Open Air Market

WEEKDAY

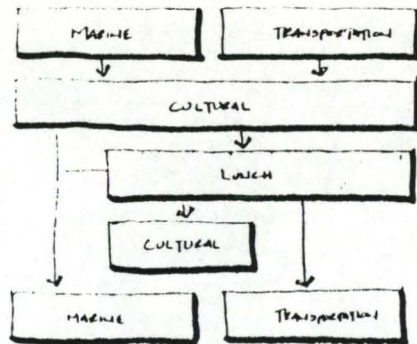
	MORNING early	late	AFTERNOON early	late	Evening early	late	NIGHT
Information							
Walking							
Jogging							
Bicycling							
Roller Skating							
Ice Skating							
Dining							
Shopping							
Open Air Market							

WEEKEND

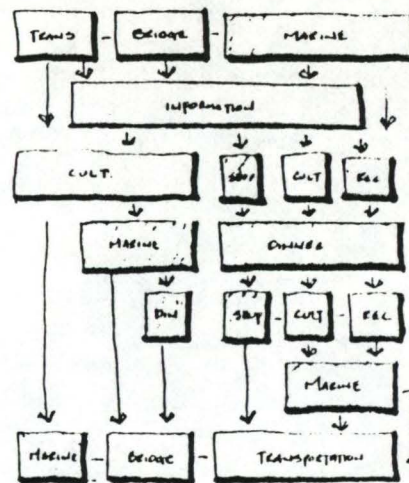
	MORNING early	late	AFTERNOON early	late	Evening early	late	NIGHT
Information							
Walking							
Jogging							
Bicycling							
Roller Skating							
Ice Skating							
Dining							
Shopping							
Open Air Market							

Scenarios

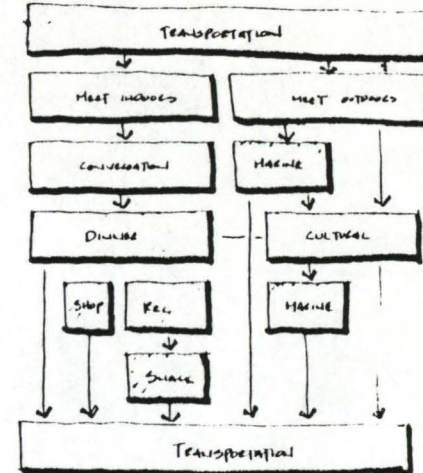
Class Trip



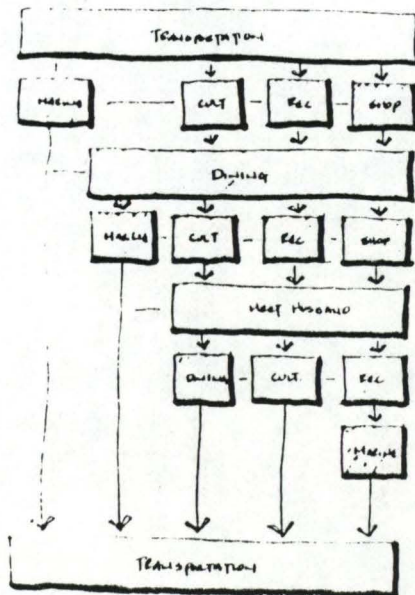
Tourists



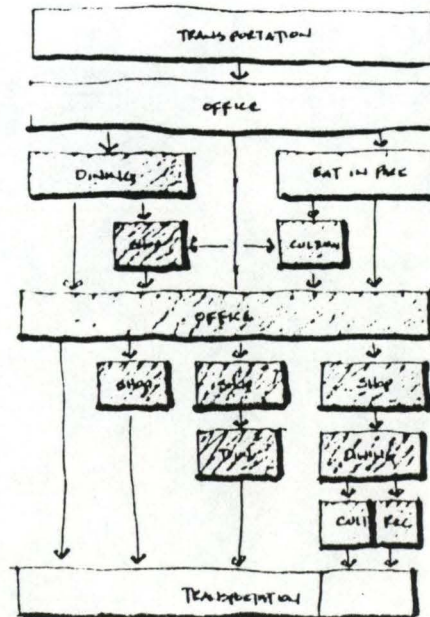
Date



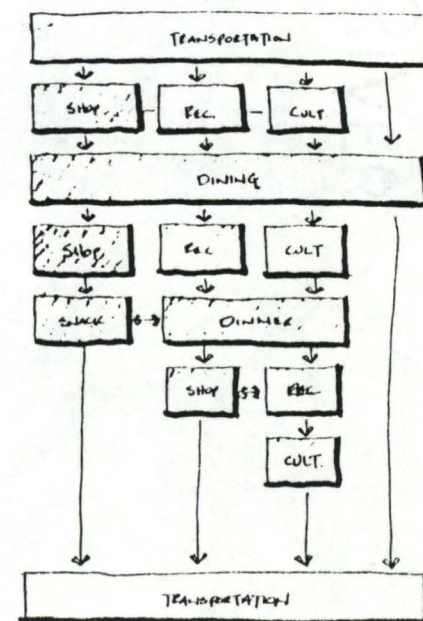
Housewives



Office Worker



Resident Family



WATERFRONT FACILITIES

MARINE TRANSPORT & RECREATION



Ferry Dock	as req'd
Excursion Boat Dock	as req'd
Marina	100 slips
Yacht House.	5000

CULTURAL

Visitor's Center	4000
Permanant Exhibit Space.	6000
Temporary Exhibit Space	9000
Performance Space.	6500
Office Space.	2000
Support Space.	1000
Exterior Space	as req'd

RECREATION & SPORTS

Waterfront Promenade	as req'd
Open Space	as req'd

DINING & SHOPPING

Restaurant & Cafe.22000
Beer Garden9300
Fast Food11000
Public Seating.16500
Outdoor dining	as req'd
Retail14000
Kiosk Retail1000
Open Air Market45000

PARKING1800 cars
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THE MARKET HALL

The Market hall will act as the commercial generator on the waterfront, functioning as an enclosed marketplace with commercial retail and a variety of restaurant space.

MARKET HALL ACTIVITIES

Restaurant

Facilities to provide for sit down dining will require seating area, kitchen, and all necessary support spaces.

Cafe

Informal sit down facilities which offer a limited menu will need seating, cooking and support facilities.

Fast Food

Areas will be needed for the preparation and sale of a variety of specialty foods from a counter type space.

Public Seating

Seating areas must be provided for customers of the specialty fast food counters, these areas should be in close proximity to the counters.

Beer Garden

The sale of beer, alcoholic beverages and limited snacks and food in a festive open atmosphere. Seating, bar and necessary support space will be required.

Retail

Space is to be allotted for occupancy by a variety of retail tenants selling specialties and knick knacks. both permanant and vendor space will be provided.

Employee Lockers

Employee area where workers may change, shower or relax.

Deliveries

Servicing of occupants of the building will require an office, dock, service elevators, and various support spaces.

Entertainment

Entertainment that is both planned and spontaneous should be considered. This may range from bands to magicians and clowns.

Fairs

A selection of arts & crafts, trade and culutural fairs should be accomadated. Necessary open space should be provided.

SPATIAL NEEDS



RESTAURANT 14000

Dining 7000

Kitchen 6000
Including cooking, preparation, storage,
pick-up, dishwashing, trash area and office

Support 1000
Including cashier, coat check, and waiting
area

CAFE 8000

Dining 4500

Kitchen 2500
Including pick-up, dishwashing, cooking,
preparation, storage, trash area, and office

Support 1000
Including cashier, coat check, and waiting
area

BEER GARDEN 9300

Seating 6500

Bar 2700
Including bar area, kitchen, storage, trash,
and office

Support 100
Including cashier and coat check Office

FAST FOOD 11000
Including counter, cooking, preparation and
storage areas counter, cooking, preparation,

and storage

PUBLIC SEATING 16500

RETAIL 14000

KIOSK RETAIL 1000

STORAGE 20000

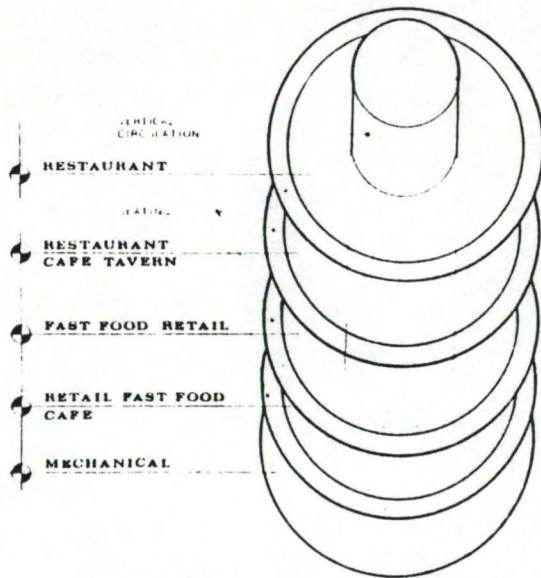
EMPLOYEE LOCKERS 10000

SERVICE 5000
Including service dock, reception office,
trash areas, janitor's closets, electrical
closets, and telephone closets

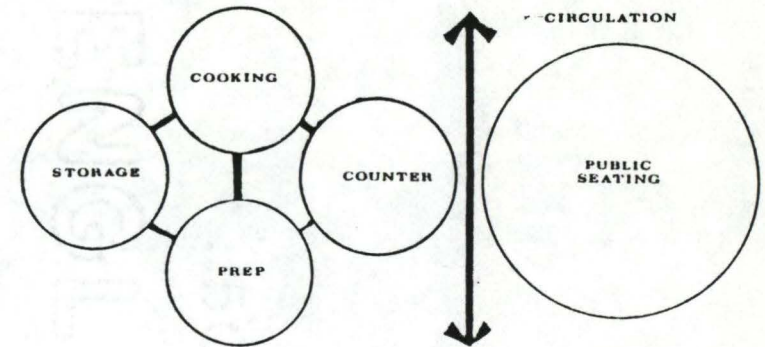
MECHANICAL as req'd

CIRCULATION as req'd

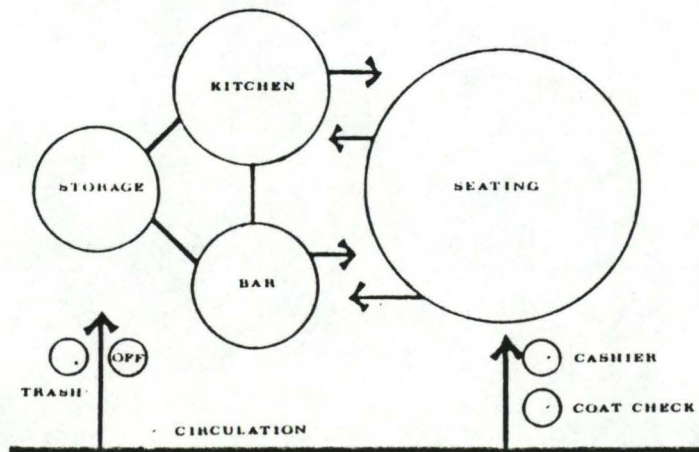
Functional Relationships



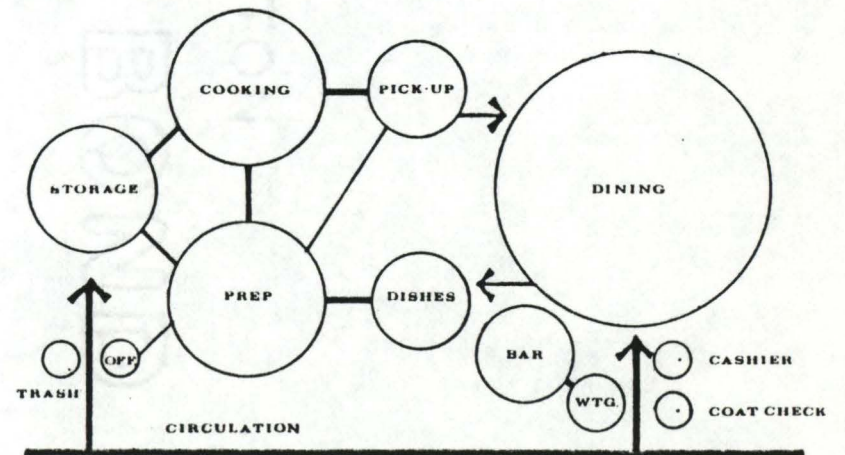
FAST FOOD



BEER GARDEN



RESTAURANT



CASE STUDIES



FULTON MARKET

Fulton Market, the commercial centerpiece of South Street Seaport in Lower Manhattan, was designed to be a "hardworking shortsleeves sort of place". An active center of on going life in the city that coexists comfortably with the legacy of it's past. In doing so the architects Benjamin Thompson & Associates recalled the 19th century practice of commercial buildings as prominent civic landmarks. The design responds to the previous Fulton Market Halls, a neoclasscal pavilion of 1822 and the later eclectic victorian building of 1883. A major concept of these buildings is that of an open hall with adaptable shed extensions.

Visitors become aware of the activities within through extensive use of glass on the first two stories. Once inside the building one can see the activities of the upper levels through vistas provided by atriums and stairwells. The feeling of a working environment festive in spirit is achieved Through use of shed like spaces articulated with exposed steel beams, columns and decks. Low tiled partitions and a suspended ceiling grid with domed lamps establish a continuity in the space.

The exterior of the building is of brick and granite with a metal shed like roof. The building mass is concealed through the use of a canopy which wraps the market. The surroundings of the building are articulated in belgian block with granite crosswalks and bluestone sidewalks.

Source: "Profiting from the Past";
Architectural Record, January 1984

HARBORPLACE

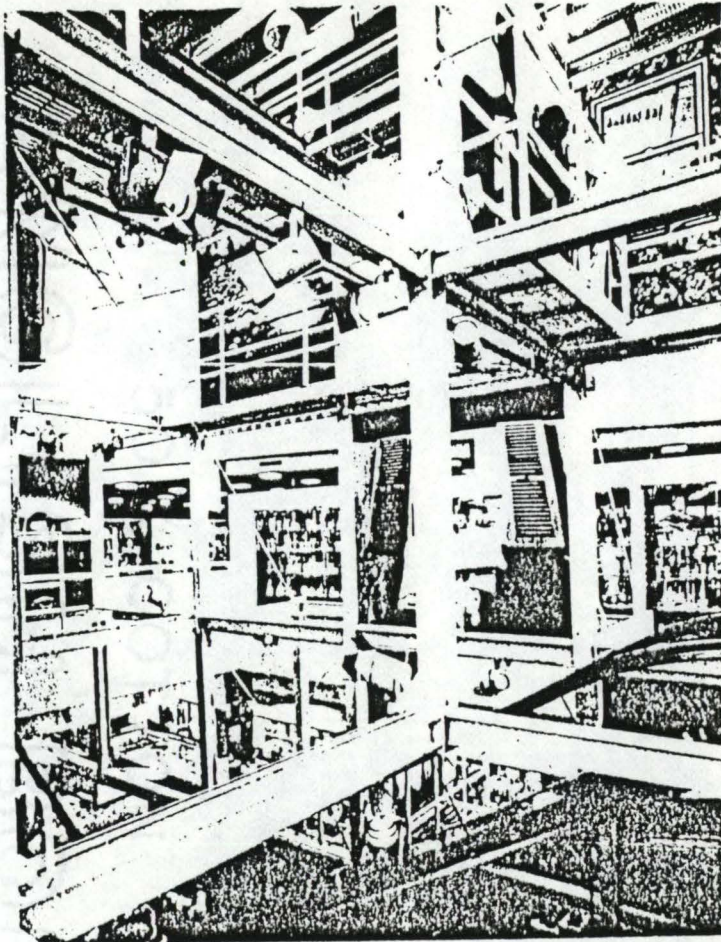
Two concrete and steel pavilions line the Inner Harbor, bringing a vivid street life to the area. The form and scale of these buildings were derived from the wharf buildings that once occupied the site. While remembering traditional commercial waterfront architecture, architects Benjamin Thompson & Associates incorporate elements of America's major city parks with dramatic greenhouses, horticultural halls, and exposition buildings.

The pavilions house almost 250,000 sq. ft. of restaurants, cafes, retail stores, stands and kiosks. The northern pavilion houses specialty shops and some of the more formal restaurants and cafes. It is organized around a narrow central corridor that widens where it meets the vertical circulation porticos. The purpose of the narrow corridor is to create both a social and commercial interaction.

The western pavilion is more open in plan. Designed to meet the functional demands of quick service food counters, kiosks, fish and meat markets, and various specialty shops.

Responding to the site's assets and meeting a basic design consideration of embracing the shore without blocking it, the buildings have no fronts or backs.

Source: "A New Market Complex with the Vitality of an Old Landmark: Harborplace in Baltimore"; *Architectural Record*, October 1980



SUPERSTORE

The goal of Walker/Group's Burdine's Superstore designs in Florida was to provide an air of retail excitement in a modest means. Architect Ken Walker calls it an attempt to "put a circus in a tent, a world's fair in a hanger". The basic theme of the designs was the use of a modular grid in an atrium shell. To test the idea Burdine's has built six stores, all a variation on the superstore concept. Each application experimented with space and color.

The methods which have proven most successful are;

- 1) The location of vertical circulation in a central skylit atrium.
- 2) Burdine Clearwater's use of the industrial esthetic.
- 3) A grid re-orientation that creates overlapping geometries and allows for a variety of visual discoveries.
- 4) Wrapping the atrium in a 3-d display matrix of interchangeable modular panels.
- 5) Use of simple color palettes to highlight goods.

The success of these techniques has created an intimate and exciting shopping experience. The designs provoke customer curiosity and promote greater product awareness. With these design innovations, Burdine's sales have increased as much as 22%.

Source: "Superstore"; *AIA Journal*, July 1981

AIR SUPPORT STRUCTURES

Air support structures have been built in climates from Florida and California to Minneapolis, Syracuse and Detroit. To date, most air support structures have been constructed for government or institutional use. There have been retail applications of tensile structures in Bullock's of California and Florida Festival in Orlando. However, Horst Berger states, "we have yet to realize the opportunities of fabric structure in the retail environment".

There are technical advantages in the use of an air support structure. Air structures lend themselves to quick construction, enabling fast tracking by the enclosure of the interior space at an early time. Their weight is 1/30th of a conventional steel frame roof. The collapse of an air support structure represents minimal danger and may be repaired in little time. Air support structures also are energy efficient with reduced energy costs due to less artificial lighting needs.

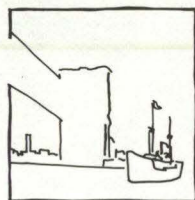
Design Information

- 1) Teflon coated fiberglass is the best fabric. It provides easy maintenance, good strength, and has a 20 year life expectancy.
- 2) .2 or less rise to span ratio is necessary in the roof curvature to meet wind load requirements.
- 3) 6-20% translucence may be obtained and the fabric's interior reflectance is good for use in night lighting.
- 4) A membrane roof system provides insulation and snow melting capabilities.

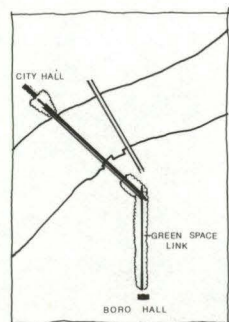
Source: "The Era of Swoops and Billows";
Progressive Architecture, December 1981

**DESIGN
PROPOSAL**

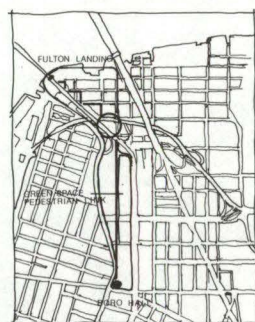




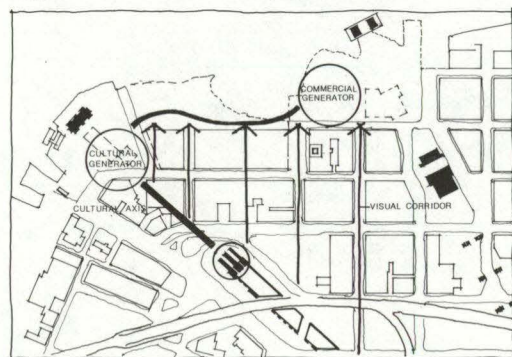
FULTON LANDING



REGIÓN

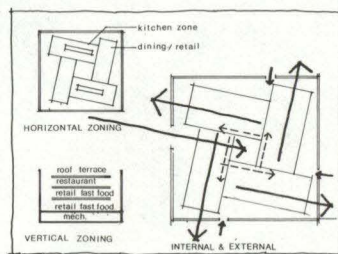
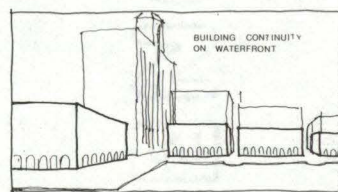
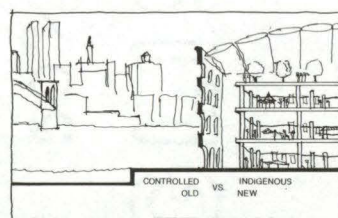


DISTRICT

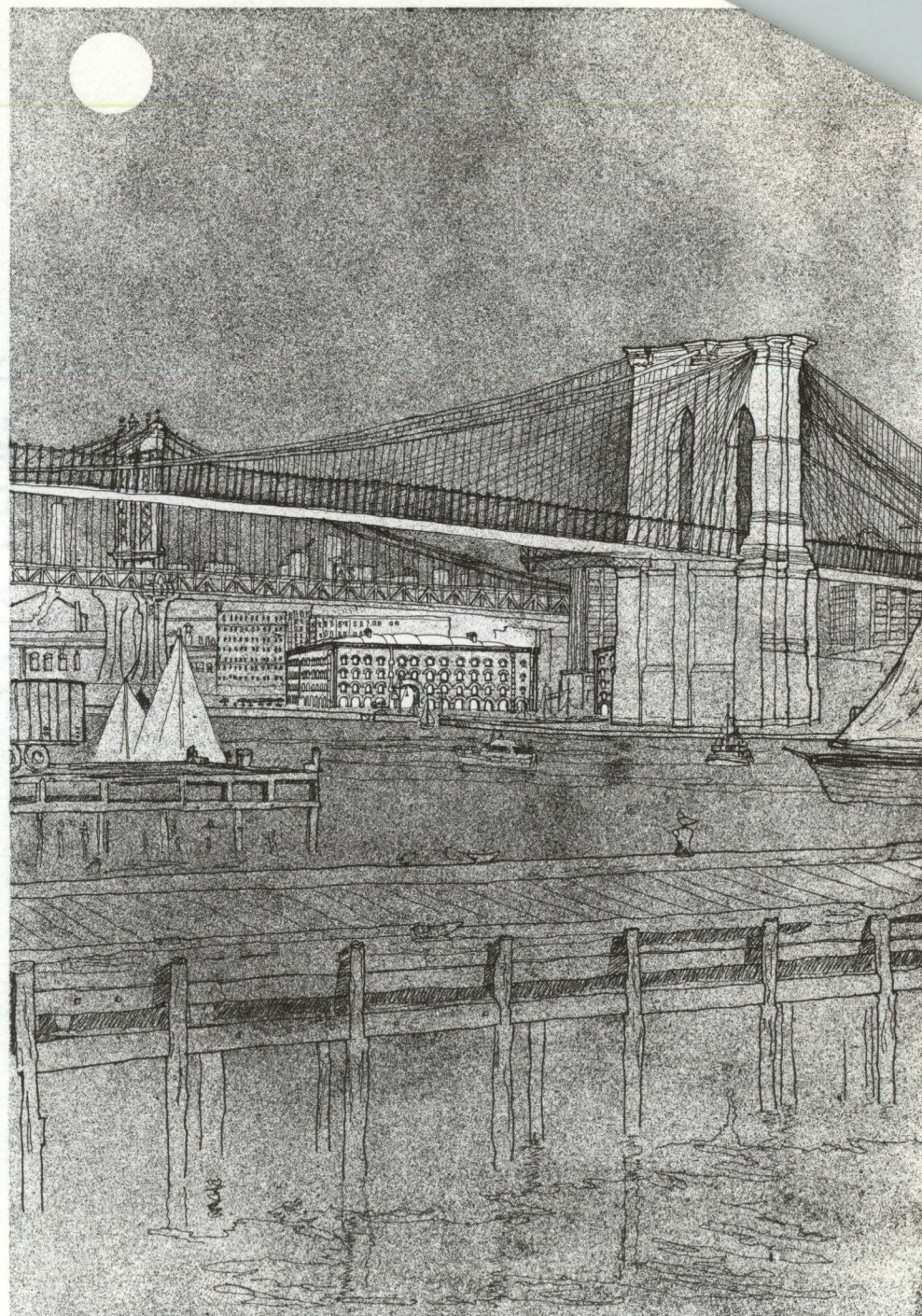


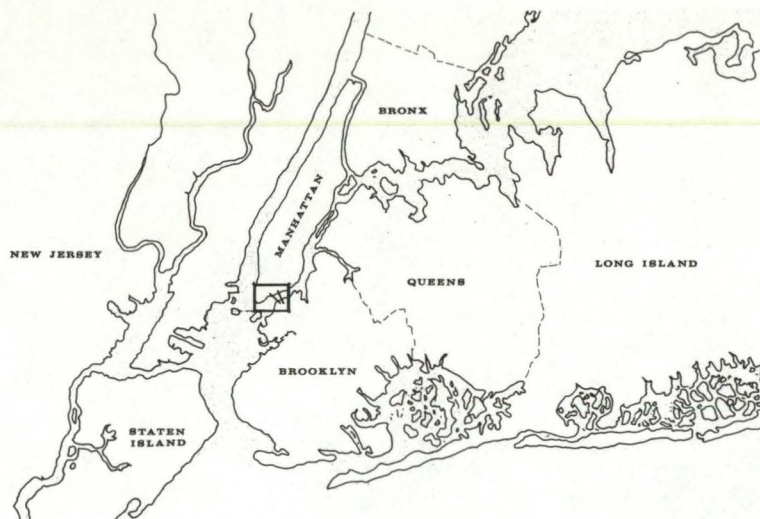
AREA

CONCEPTS

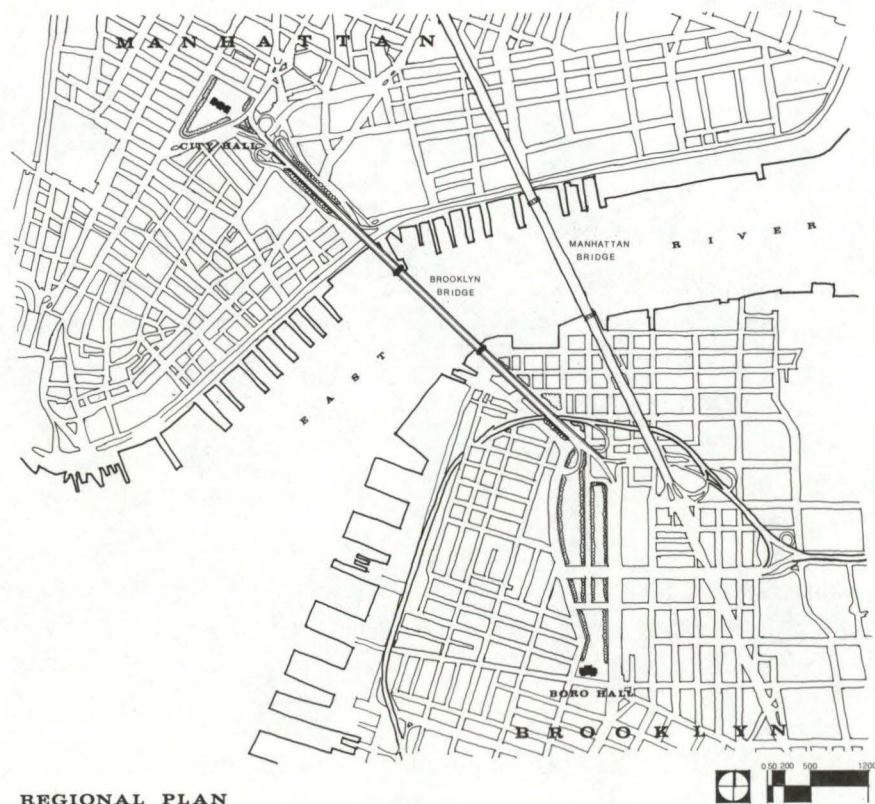


MARKET HALL

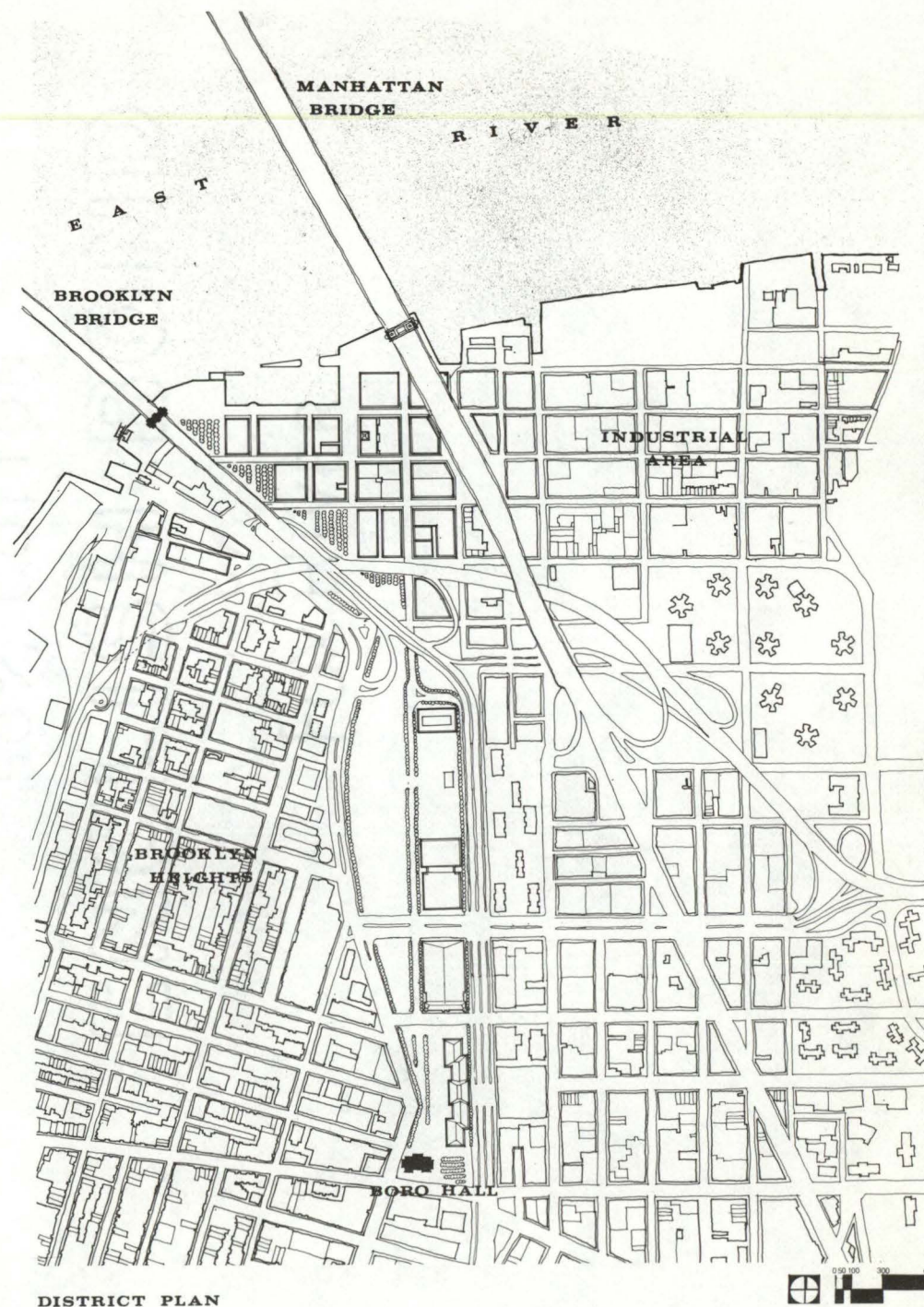




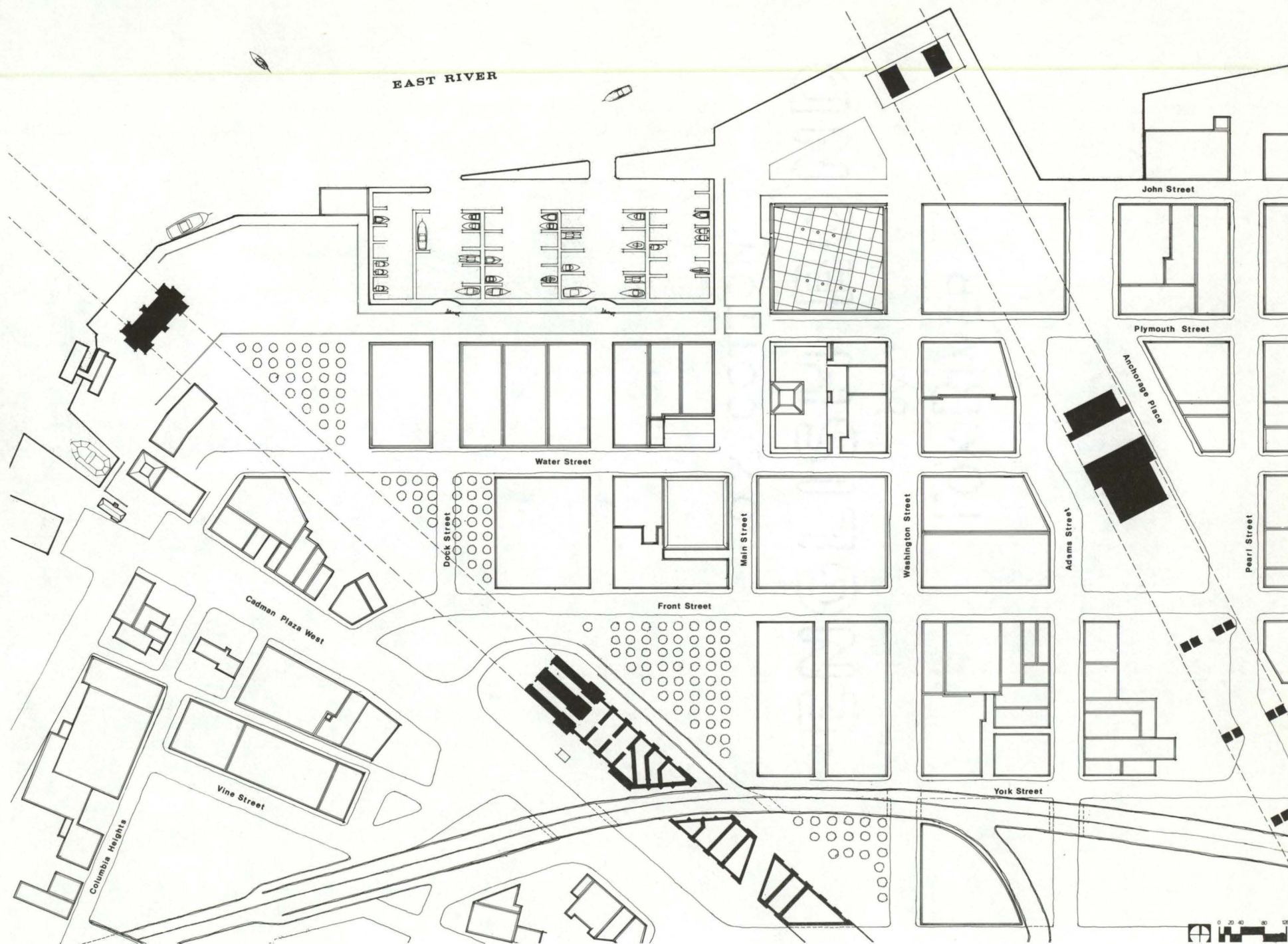
CITY MAP

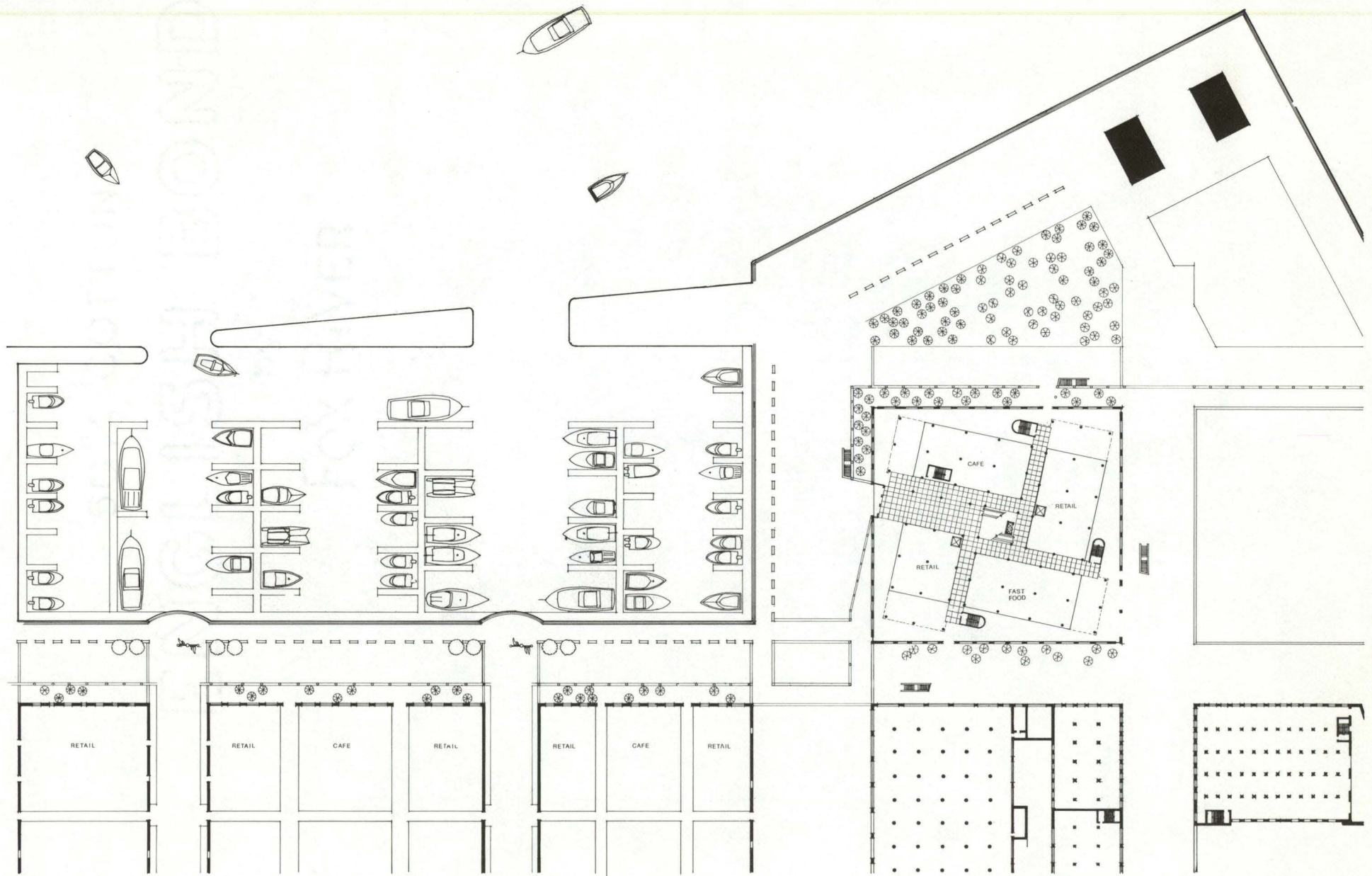


REGIONAL PLAN

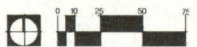


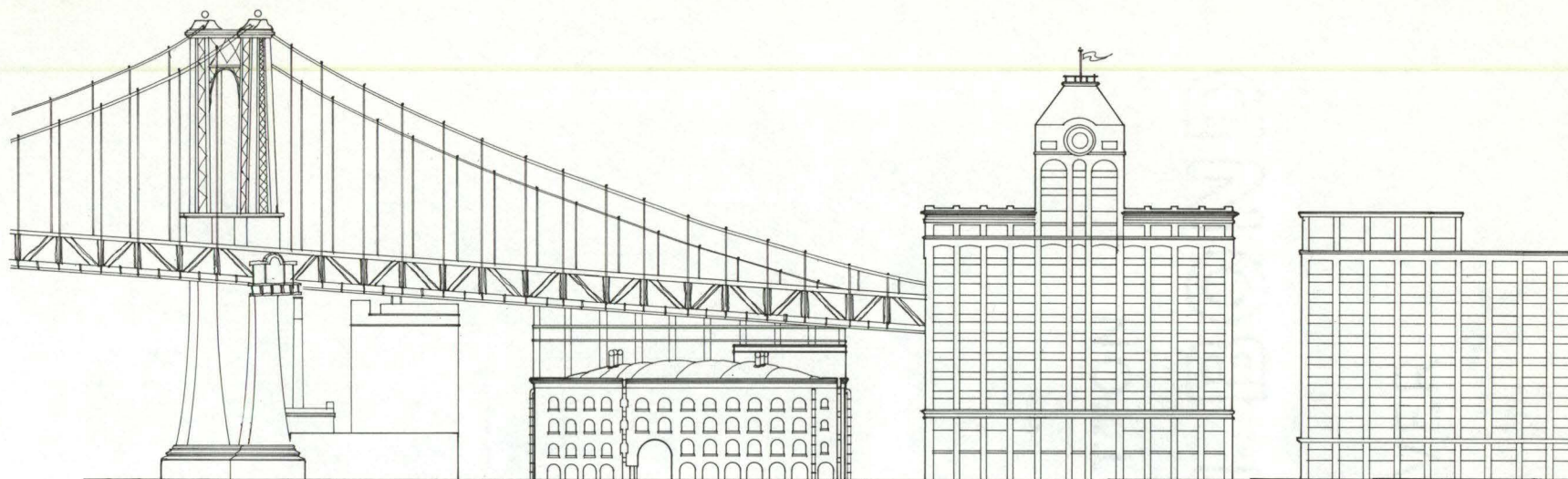
DISTRICT PLAN



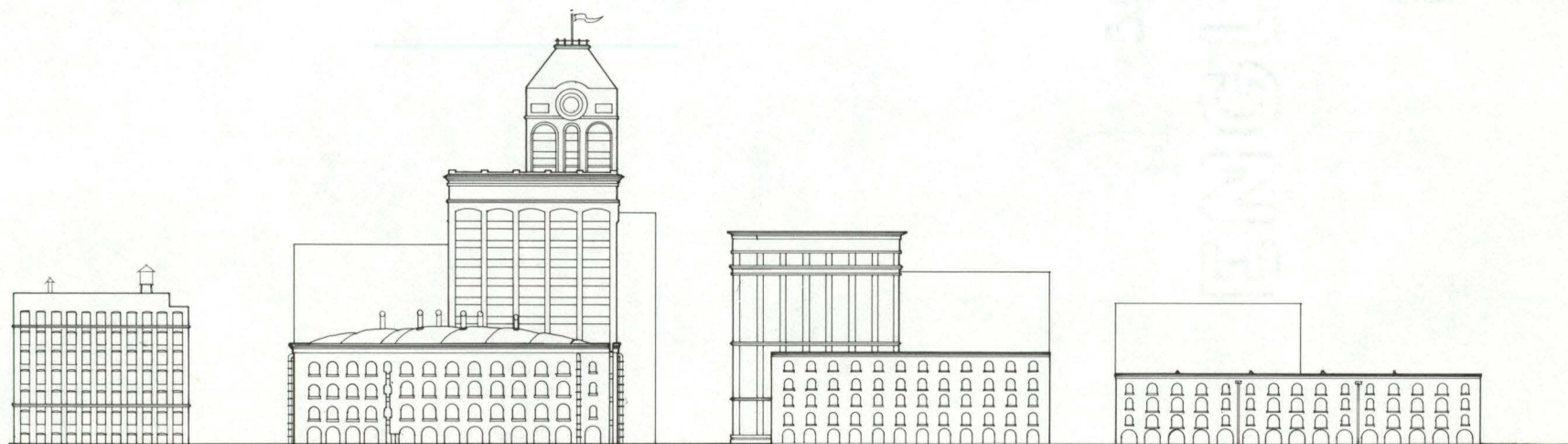


SITE PLAN



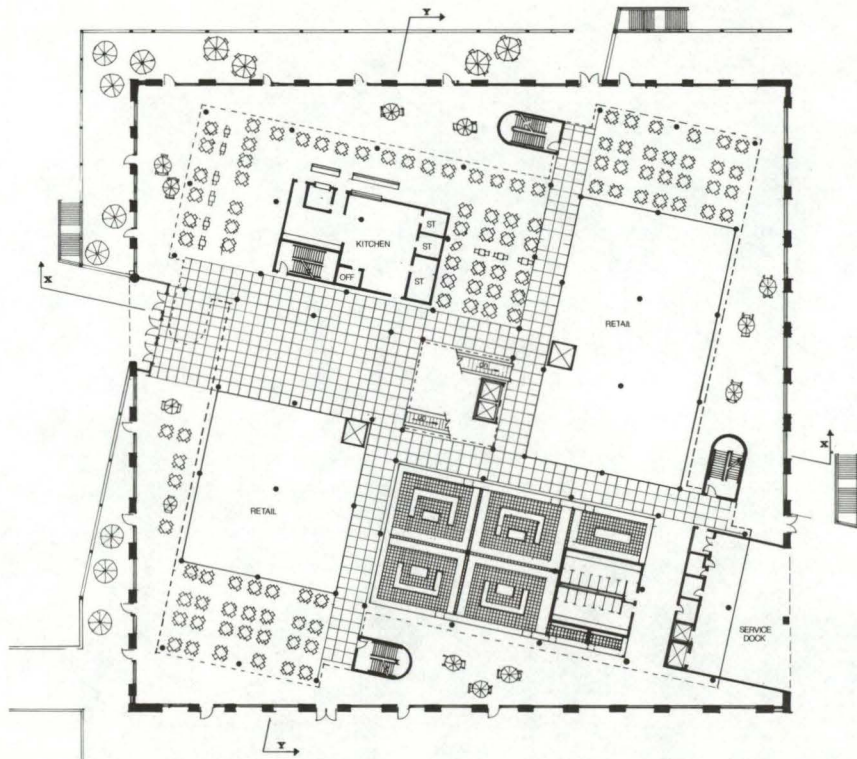


MAIN STREET ELEVATION

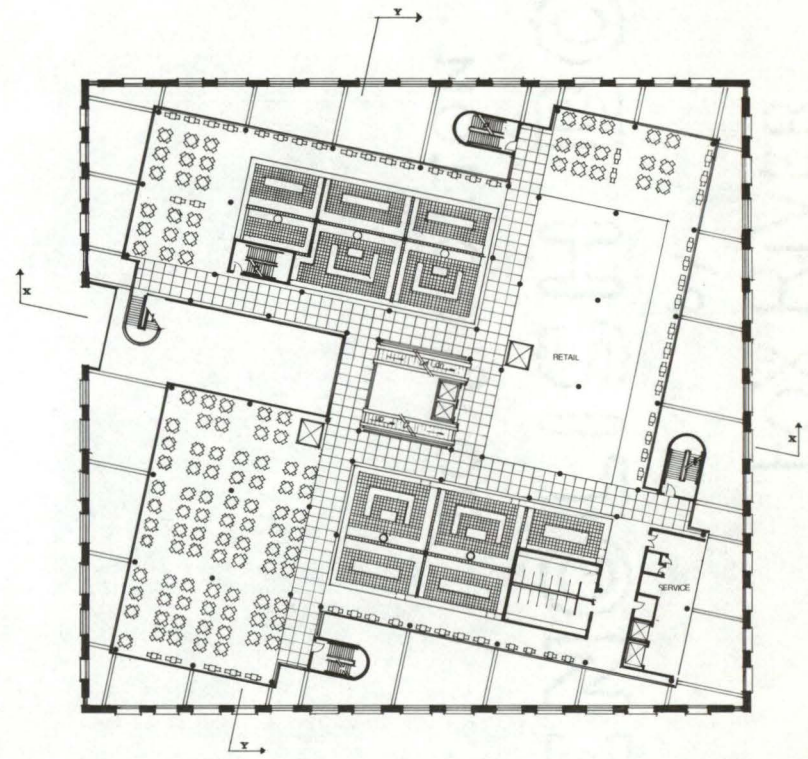


EAST RIVER ELEVATION



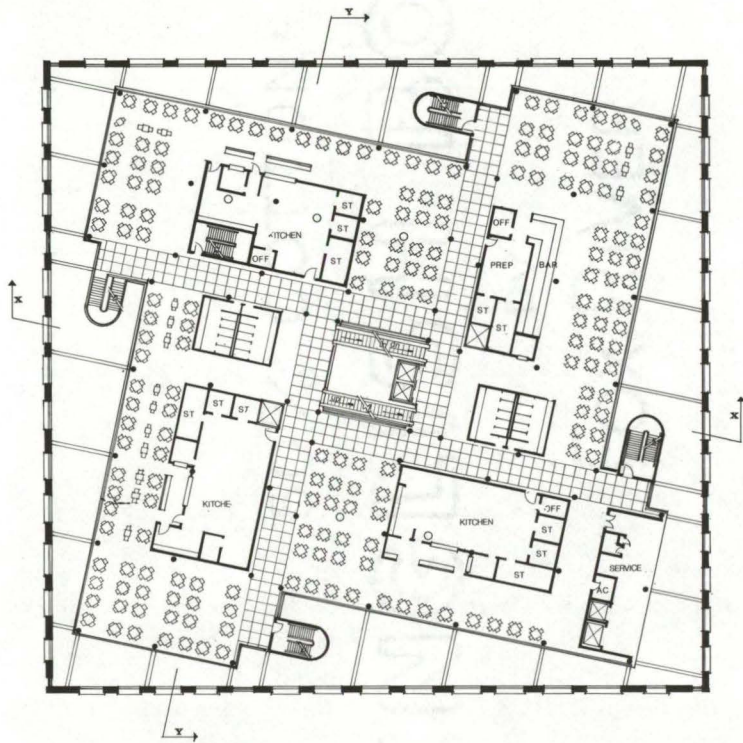


ENTRY LEVEL

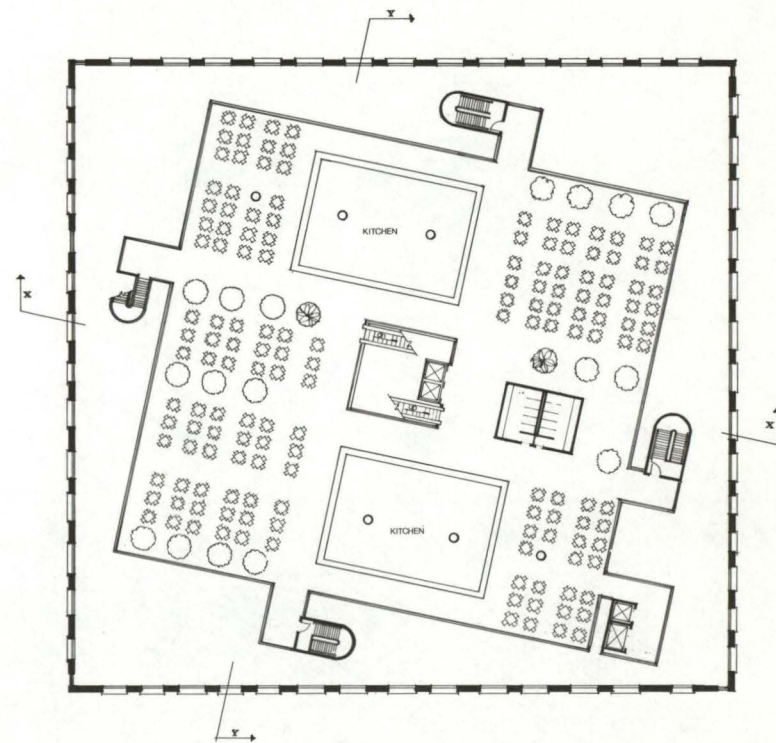


SECOND LEVEL

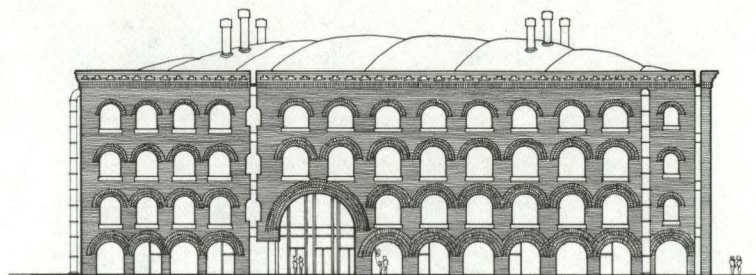




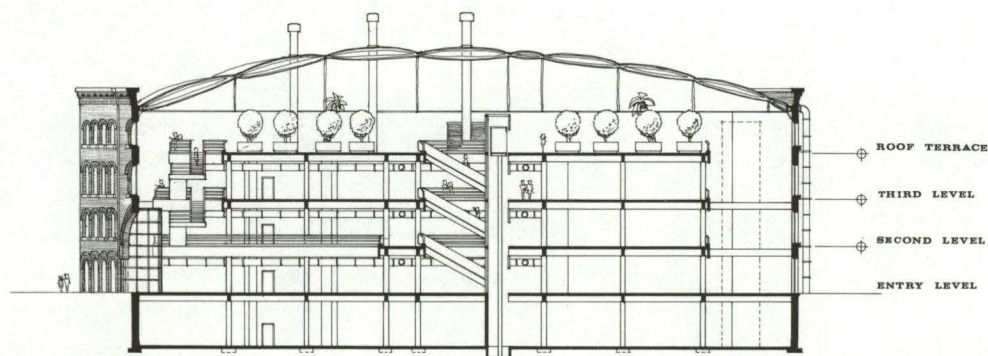
THIRD LEVEL



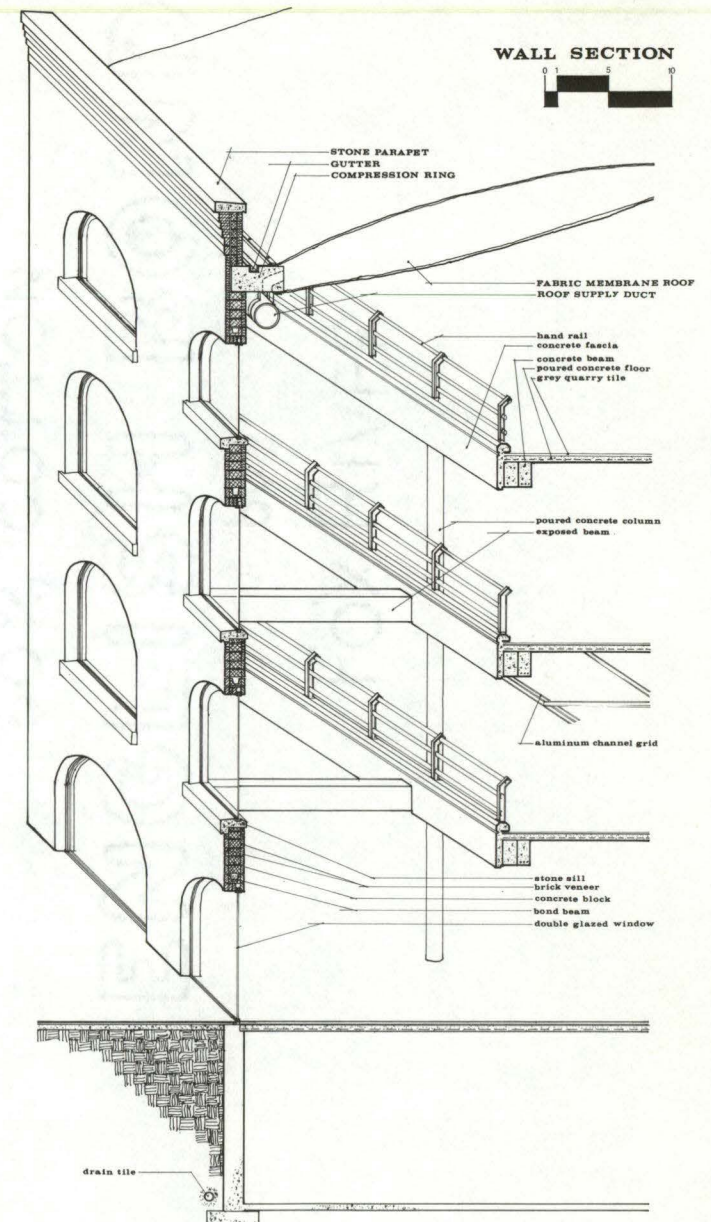
ROOF TERRACE

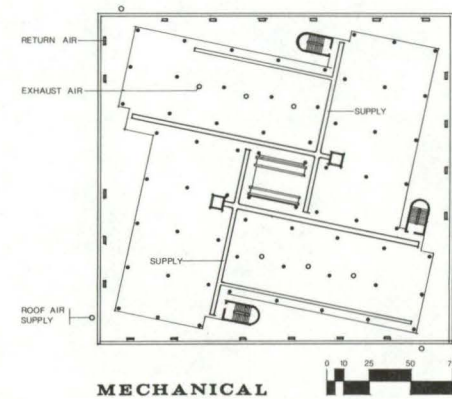
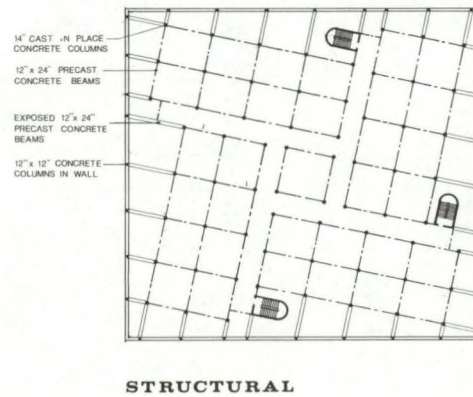
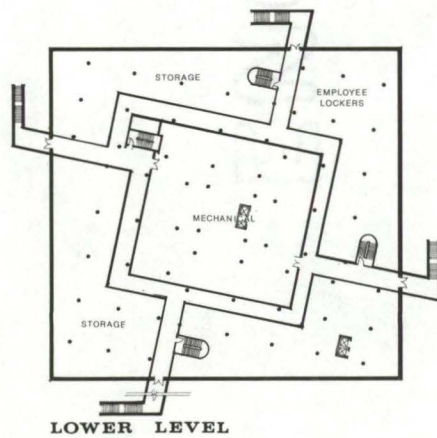
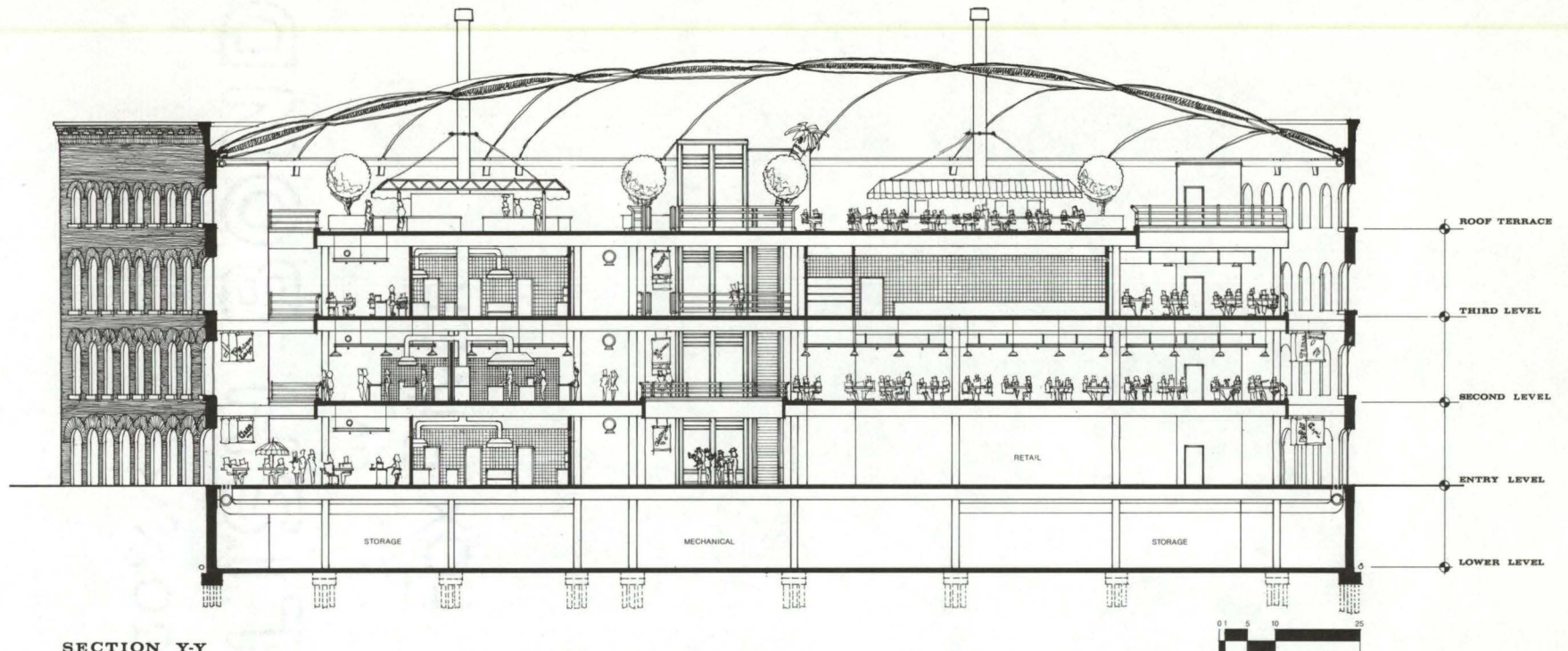


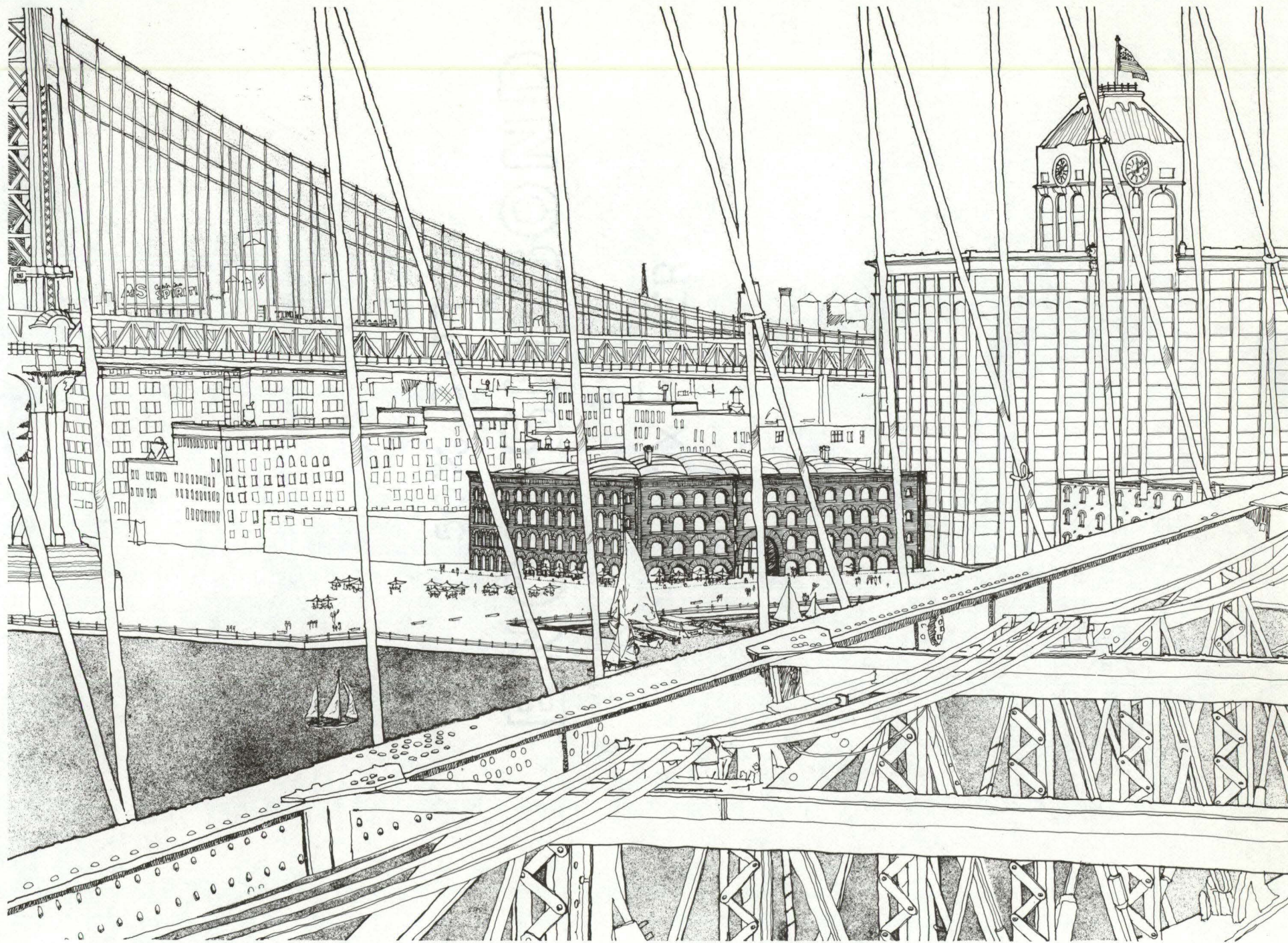
MAIN STREET ELEVATION

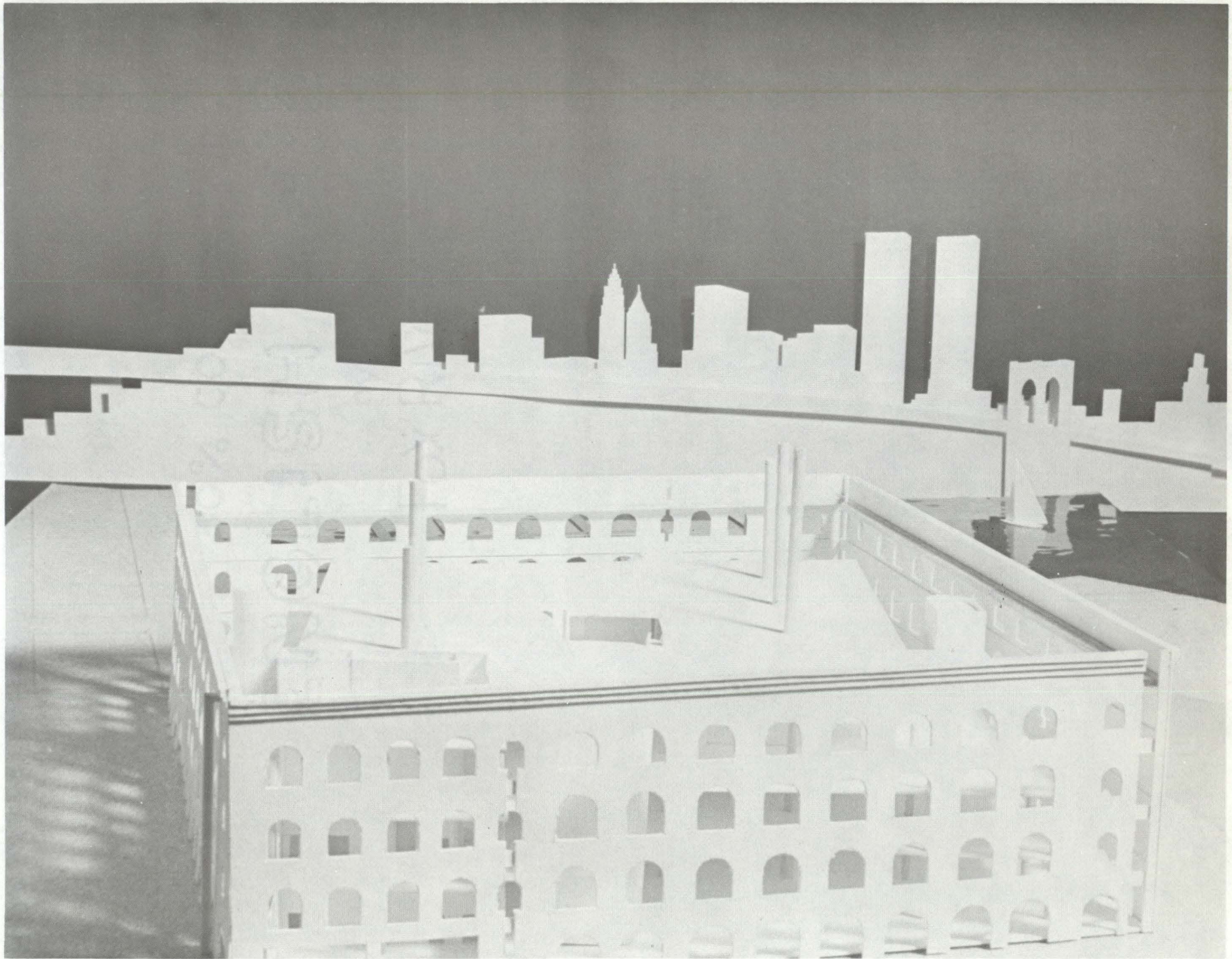


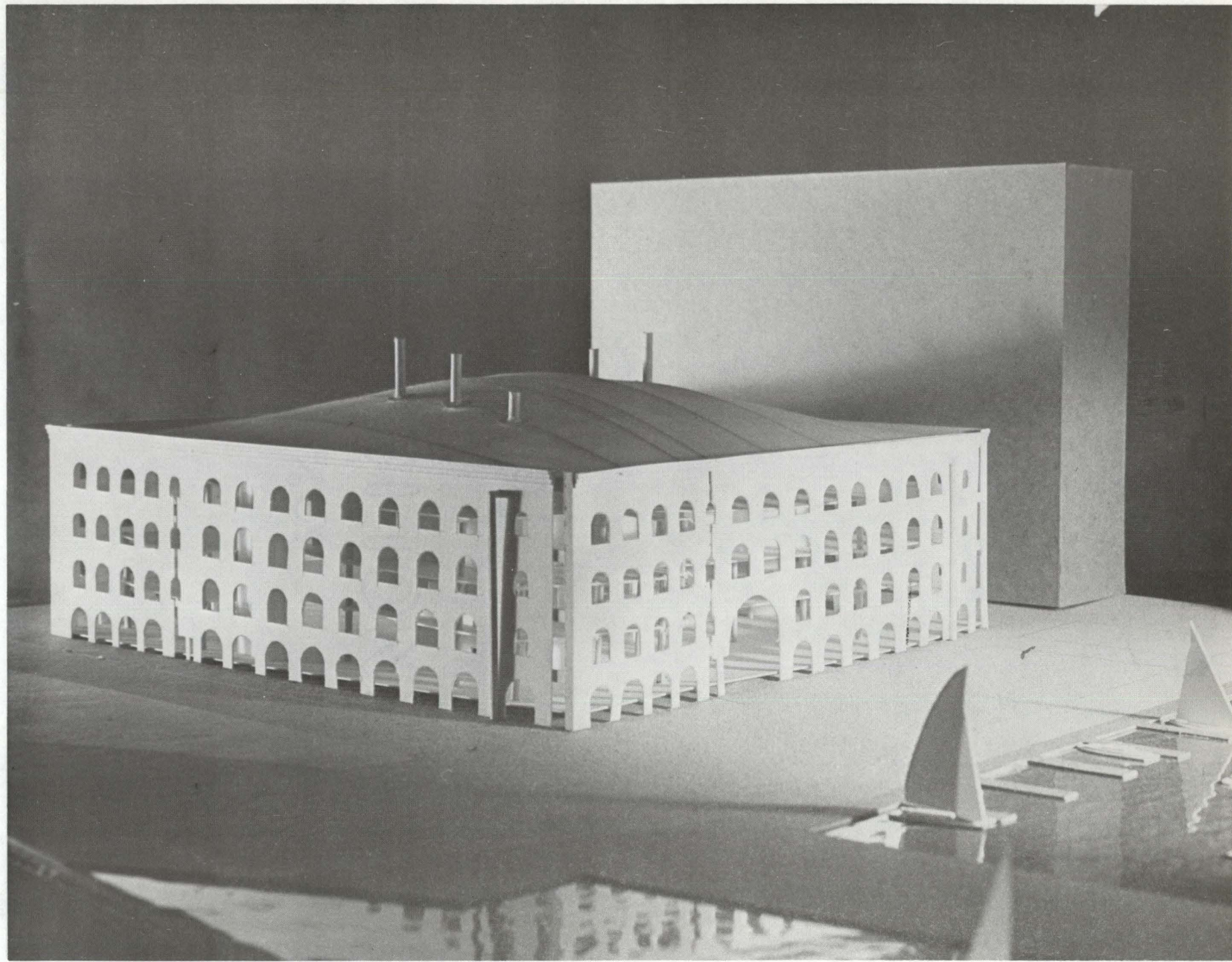
SECTION X-X

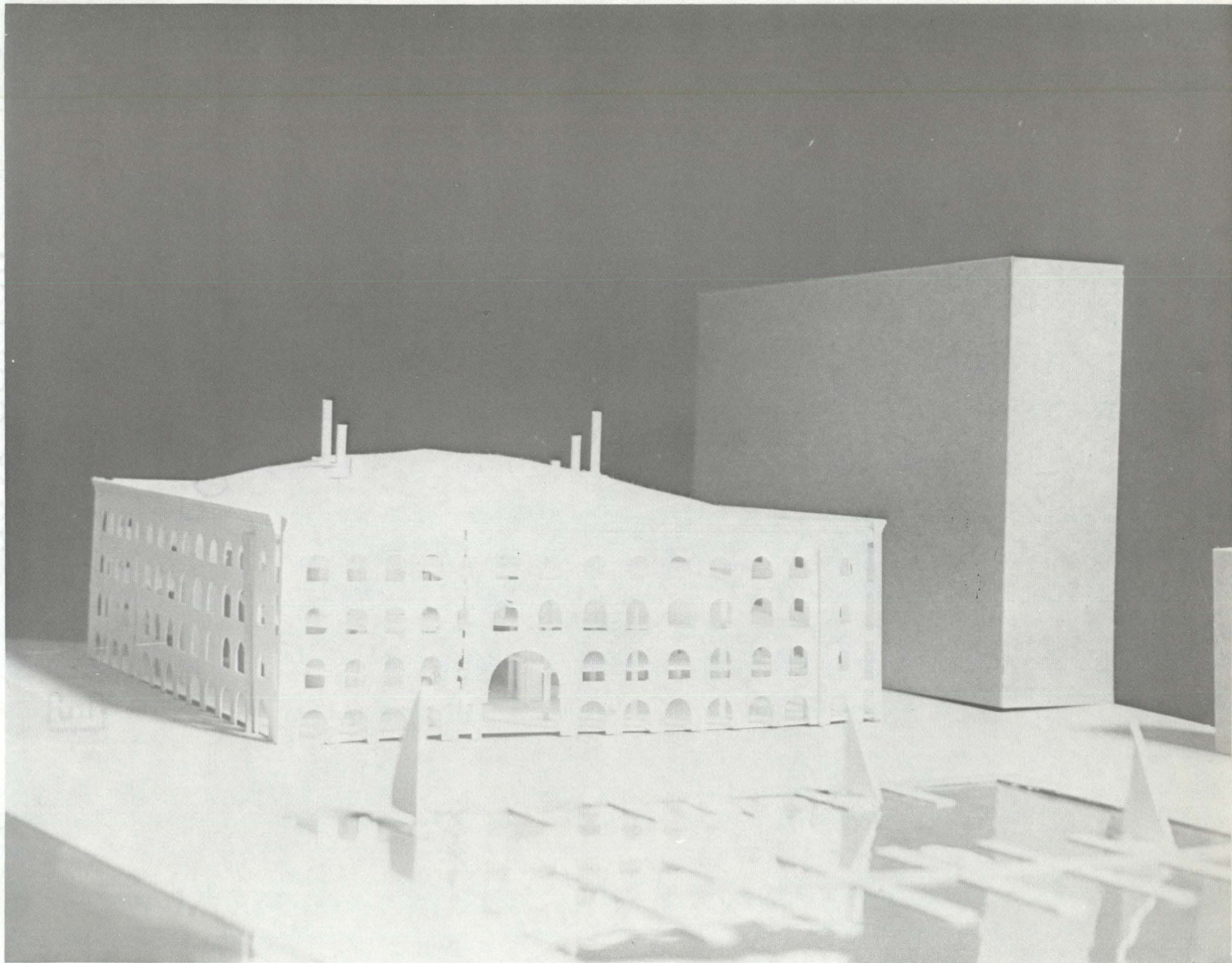












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